ASSOCIATION OF AMERICAN COLLEGES

# BULLETIN

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## Some Values Worth Preserving

## The Place of Research in the Undergraduate College

## Attacking Problems of Intellectual Achievement

## A College President's Professional Library

Edited by

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## THE BULLETIN IN 1930

All subscribers are requested to note that Volume XVI (1930) will contain four issues, published in March, May, November and December.

The regular price of an annual subscription to the BULLETIN is $3.00; single copies 75 cents; the March issue, combining what were formerly the February, March and April issues, is $2.00.

Members of the Association have the privilege of a special club rate for faculty and board members. Single subscriptions for two years, $1.00, or annual subscriptions in clubs at fifty cents each. To them the price of single copies is twenty-five cents, except for the March issue containing the proceedings, which is 75 cents.

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## *EDITORIAL*

### The Conference of Liberal Arts Colleges at Chicago

The Chicago conference to consider the financial needs of American colleges of liberal arts was not related officially to the Association of American Colleges. The Executive Committee of the Association, however, appointed President D. J. Cowling and the writer as fraternal delegates and they both took places on the program. Dr. Cowling presented a revision of his former paper "An Analysis of the Financial Needs of a College of Liberal Arts For One Thousand Students." There may be added interest in the fact that Dr. Cowling made this presentation, in view of his recent appointment to the chairmanship of the Association's Commission on the Cost of College Education. The writer spoke on "The Prospects of the Liberal Arts College."

President A. N. Ward, the leader of this movement, collaborated frequently in arriving at the general set-up of the meeting, with Dr. Anthony, now the Chairman of the Association's Commission on Permanent and Trust Funds; with Mr. Palmer, the Associate Secretary, and with the writer. Dr. Anthony and Mr. Palmer also took places on the program of the meeting. Doctors Cowling and Anthony were made members of the Findings Committee, of which Dr. Cowling was elected chairman. Mr. Palmer was made secretary of the conference and will be chiefly responsible for editing the proceedings.

The Findings Committee under the chairmanship of Dr. Cowling reported as below. It will be observed that the movement bespeaks the closest possible affiliation with the Association of American Colleges. The representatives of the 278 colleges in attendance nearly all of which are mem-

bers of the Association of American Colleges were emphatic in their expression of desire that no additional machinery be set up which would interfere with the work of the Association, and the hope was expressed that eventually this movement might become a department of that Association. In any event, the entire problem is now in the hands of the Executive Committee of the Association for their careful consideration.

### *Report of the Committee on Findings*

DONALD J. COWLING, *Chairman*

(1) That an organization to be known as the Liberal Arts College Movement shall be formed in close affiliation with the Association of American Colleges to be composed of institutions whose work includes four years of liberal arts and which shall pay a membership fee of $100.00.

(2) That the objectives of this Movement shall be to set forth the place of the college of liberal arts in higher education in the United States and to cooperate with colleges of liberal arts in securing funds adequate to their needs.

(3) That a committee to be composed of the following five men—President Albert N. Ward, Dr. Robert L. Kelly, President Joseph H. Apple, President Guy E. Snavely, and Father Bernard P. O'Reilly—shall be constituted and given the authority of this conference to appoint a Committee of Fifteen as outlined in Dr. Ward's proposal.

(4) That the further development of the program be committed to this Committee of Fifteen, and that this Committee make its report at a meeting of this Movement to be called in connection with the annual meeting of the Association of American Colleges next January.

*R. L. K.*

## Some Values Worth Preserving*

The American college has discovered and adopted certain household gods which are presiding over its destiny. More recently Beauty, Freedom, Intelligence, Religion and Philosophy have increasingly shed their benign influence upon college affairs. When the academic atmosphere becomes sluggish in certain pockets, even wellnigh to the point of embalmment, these magic ingredients liven it up and new currents set in.

*Beauty.* When President Harper discussed "The Prospects of the small College" at the beginning of this century, the University of Chicago was entering upon an object lesson, to be seen of all men, of the power of harmony and balance in architectural and landscape effects. Stanford had already done this, and years before, the University of Virginia. How many other such consistent object lessons were there then? Today colleges may be counted by the hundred, not all of which have attained architectural beauty, but all of which are earnestly devoted to attaining it. Many of them are conspicuously attaining it. College construction has become a part of the movement toward American architectural supremacy, and instruction in the fine arts, including music, is rapidly being introduced into our colleges. This is a value which the American people will preserve.

*Freedom.* President Harper deplored the fact that there was a deadening uniformity among colleges. He is reputed to have said he did not care to undertake the building of just another college at Chicago. He named a few institutions that had individuality. Today almost every American college has an individuality, a personality of its own. Traditions have sometimes been abandoned and the spirit of adventure has led the executives and administrators to restudy, to modification, even to bold experimentation.

* Extract from an address delivered at the Conference of Liberal Arts Colleges in Chicago, March 18, 1930.

Meantime the college teacher has raised his voice in demanding academic freedom and has largely achieved it. Indeed a formula for academic freedom and tenure, propounded by the Association of American Colleges, has been approved in principle by both the executives and the teachers. The number of cases arising in this field for adjudication is very small.

And the virus of freedom has percolated into the circulatory systems of the students. No longer much need here for other Patrick Henrys. One might say that the student revolt is revolting, but he must hasten to add that the results have been generally most agreeable and reassuring.

The executives and faculties and students have attained the new freedom—or say they have, which, as Galsworthy suggests, is perhaps not quite the same thing. It is a value worth preserving.

*Intelligence.* In an increasing number of colleges the question of whether students should study is being answered in the affirmative. Many colleges are devoted to a stubborn effort to discover and recognize student aptitudes and to make the conditions favorable for their development. The leading colleges of America have banded themselves together within the last two years in the effort to place a premium upon the deepening and broadening of the minds of their own members—both students and faculty. They are not assuming that students must be made to study—they recognize that if some students are underlings some of the fault may lie with the teachers as well as with the students themselves. If students should study, so also should teachers teach. It is a value worth preserving.

*Religion.* President Harper was impressed thirty years ago with the decline of the sectarian spirit which, however, he did not confound with the denominational spirit. He did protest against the cry from "denominational bosses that the denominational colleges must be supported, their

halls must be filled by students from the families of those belonging to the denomination, and the denominational ideas must be propagated," and he predicted that with "the gradual weakening of this narrow religious spirit"—of the bosses, not of the rank and file of the denomination—"a great source of power and strength which has hitherto lent support to the building up of the small college will be removed." As a matter of fact, this alleged cry of the bosses has not much affected the denominational colleges. The multiplication of the agencies and influences of religion and religious education in our colleges during the last few decades is a remarkable phenomenon which cannot be described here. Not only have the colleges closely affiliated with the churches greatly improved their methods of teaching religion but some of the colleges the least sectarian, and even the least "denominational" as that term is usually understood, have become more religious and have attracted more students from all denominations. The churches today whose members are assisting denominational colleges are striving to render a service to society in general, not simply to their own membership and that their efforts are appreciated is evidenced both by the increasing endowments and by the increasing number of applicants for admission. The churches are being taught that first of all the colleges must be worthy of support. No college has a right to ask for support simply because it is a college or a denominational college. The college must demonstrate quality or retire from business.

*Philosophy.* We are now on the threshold of the greatest era of thought since the days of Darwin. Anyone with a spark of speculative appreciation within his soul must be thrilled by the prospect ahead. Our thinkers not only stand on the shoulders of all previous thinkers, but they stand on the more or less solid basis of scientific fact. Our physicists of the first order are metaphysicians, our metaphysicians use the scientific method, our astronomers and theologians are vying with each other in attempts to comprehend the infinite. Our students of nature are recogniz-

ing the existence of human nature. Science and philosophy are apparently entering on a long life of wedded bliss. Following our era of exploration and discovery we are entering upon a period of interpretation and generalization. Mechanical interpretations are yielding to dynamic interpretations of the universe and of life. We are witnessing a *cooperative* revelation.

Now the leaders in this transformation in thought are college men, men with liberal minds, men with power of cooperative thinking and working, men who represent culture at its best, men who can only be produced by the spirit of learning found in our liberal colleges. The great, new twelve volume book, ***Man and his World,*** written and edited by graduates of such colleges as are represented in this Conference—some of the foremost thinkers of the day, is a signpost in this impending revolution in thought. As well ask President Hoover to close up his new school at the head-waters of the Rapidan as to try to dam up the expectancy of these men and of their students and followers in the realm of pure scholarship. For the boy of o'possum fame and these constructive interpreters of life are animated by the same primitive impulse—the impulse to know and understand for the sake of knowing and understanding.—*R. L. K.*

### The Annual Meeting at Indianapolis, 1931

There are a few minor changes in the arrangements for the Annual Meeting of the Association which is to be held in Indianapolis on January 22–23, 1931.

The headquarters will be at the Claypool Hotel as heretofore announced. A list of the other hotels of the city with their prices will be sent to the members of the Association. The Association meetings are to begin at 10:00 o'clock on the morning of Thursday, January 22. The banquet session will be on Thursday evening. The Association will continue in session until adjournment on Friday. Members of the Association are encouraged to make their reservations at the earliest possible date. There

are numerous other conventions in Indianapolis during the same week, and it is much easier to cancel reservations than to secure them at a late date.

During Monday and Tuesday, January 19 and 20, there will be meetings of a number of the denominational educational associations. The meeting of the Council of Church Boards of Education will also begin on Tuesday. On Wednesday forenoon and afternoon, January 21, the Council will hold meetings with especial reference to problems of denominational colleges. These sessions in a sense will be sectional sessions for which there has been an increasing demand from year to year for some time.

On the evening of Wednesday, January 21, the recently organized Liberal Arts College Movement will hold a session, at which time it is expected some sort of permanent organization will be effected either in connection with the Association of American Colleges or as an independent organization.—*R. L. K.*

## WILLS AND TRUSTS

A new book *The Preparation of Wills and Trusts* by Daniel S. Remsen, Esq., of the New York Bar, commands the attention not only of lawyers and financiers but also of persons who are building up permanent funds.

This book contains in revised form the substance of a book on Wills which has made its author well known throughout the country. Its entirely new features deal with trust agreements, the principles which are embodied in them and the laws governing them. It is a large book, running to almost 1200 pages, and it has a corresponding price, namely, $20.00, yet its value justifies size and price.

The language, although chosen for lawyers, is clear to the lay mind, for definitions, particularly in the earlier part, characterize the text and lead naturally to later statements and discussions. Presidents and treasurers of colleges and other charitable organizations will find long-abiding values in this volume. (See page 299.)—*A. W. A.*

# THE PLACE OF RESEARCH IN THE UNDERGRADUATE COLLEGE

## A SYMPOSIUM BY MEMBERS OF THE JOINT COMMITTEE ON RESEARCH IN COLLEGES*

## I

MAYNARD M. METCALF

Chairman of the Joint Committe
on Research in Colleges

Might I be pardoned if I change the subject for discussion in my paper? I would rather speak to the question of the place of the undergraduate college in an American program of education based upon the research idea and designed to cultivate the research habit of mind, that is, a system planned to encourage curiosity, productive effort and individual judgment. I would have the program begin with the pre-kindergarten child in the home, encouraged in investigation and experiment for the sake of satisfying its own curiosity. Through all the school training I think this should be the main purpose and method, and this habit of mind, more or less present in all normal children and readily strengthened by constant exercise, should continue throughout life. Increase of the capacity for research (for this is research) by its constant exercise would be the

* The Joint Committee on Research in Colleges is composed of representatives of the Social Science Research Council, the National Research Council, the American Council on Education, the American Council of Learned Societies, the American Association for the Advancement of Science, the American Association of University Professors and the Association of American Colleges. President McConaughy's "Memorandum on Research at Wesleyan University" is the contribution on behalf of the Association of American Colleges.

commanding purpose of all education. The possession of knowledge would be secondary, largely incidental. Enlargement by contact with the beautiful and ennobling and their contagion would be coordinate with training through research, the two, the research and the contacts, being the chief molding influences in desirable education. The only thing which causes wholesome growth is loyalty to a vision of the beautiful, defining beauty broadly to include all truth, beauty being harmony with truth. Research is seeking and testing truth, and the object of education is to increase one's sensitiveness to truth and one's capacity for seeking and testing truth.

This applies equally to the truths of the physical world and the truths of the spiritual world. Both sorts of truth, physical and mental, are to be sought chiefly by the scientific method of observation, hypothesis, deduction of necessary corollaries of the hypothesis, and testing the hypothesis by experimental testing of its corollaries. The *method* is the same for all testable truth, whether physical or spiritual; the *criteria* of measurement, of comparison, in the testing are different. For physical truth the criteria are meters, grams, seconds. For spiritual truth the criterion is harmony with things as they are. This is not a digression from the point, but is for the sake of emphasizing that the research spirit is essential in contacts with the spiritual as well as with the physical.

What would be some of the effects of an educational system based upon the research idea? For one thing the education so attained would increase the capacity and power of the pupil far more than education of the sort prevalent today. Again, the period of training necessary for the attainment of a considerable degree of sound judgment and productive ability, while differing, of course, with the individual, would be considerably shortened as compared with the present system. A certain passage of years, however, seems definitely necessary to attainment of those qualities of judgment which are desirable in a college student. Not

only sound methods of education, but also some maturity in years are important. My guess is that boys and girls trained largely by the research method would save, say, two years in the pre-college work. This would allow either of two things. The college stage might be entered upon at an earlier age, or a wider content might be included in pre-collegiate study, comprising, among other things, the acquiring of more tools, *e.g.*, foreign languages. Because of the importance of maturity in college students, it would probably be unwise for college work to begin more than one year earlier than is now customary. In a college course founded upon, say, ten years of training and study largely on the research plan, further research, of course, would have the central place.

Many will say that this discussion is based upon a counsel of perfection which is unattainable. Is it? Cost—several times that involved in our present educational plan,—two or three times as many teachers and the buildings to accommodate them, so as to deal with pupils in small groups and with much individual attention. Well, why not? Abolish competitive armaments and all armament beyond international and domestic police necessities, and at least half of the present total expense of the Federal Government would be saved. Remember that seventy cents out of every dollar that our Government spends goes to paying for war, past or feared in the future. A complete revamping of our educational system on the basis of the research idea, expensive as that would be, could largely be paid for from the saving from abolishing war and preparation for war.* If America alone, without international coopera-

* When the last dollar of America's debt for the Great War is paid it will have amounted to over 53 billion dollars, and this takes no account of costs incidental to the war, borne by units of government other than the Federal Government, and I think cost of care of the health of returned soldiers and of insurance is not included. Economic losses incidental to illness, incapacity and death of soldiers and to misapplication of the energy of soldiers and civilians are, of course, in addition to the 53 billions.

tion, should cut her war expense in half, she would soon so far surpass other nations in wealth, prosperity and equipment that no nation or group of nations would even consider attacking her. It would be the cheapest, quickest and surest way of becoming unassailable.

But to inaugurate such an educational system, based on the research idea, would call for a very large number of teachers trained by the research method and able to guide others in this type of training, and they are not to be found. True. The real rub is just here, at the beginning. If we were convinced of the benefits of such revamping of American education, how could we begin? Begin with the colleges. It is here that teachers should be trained, not in normal schools. If found desirable, add a year to college training for such as are to be school teachers. The place to begin changing our plan to one of training by the research method and into the research habit of mind is in the college. Of course, for a few years, pupils coming to the college will lack the important preliminary training in research habits which is desirable, but from the first introduction of the research method into the freshman course the college will begin to brace up. The pupil who has had a freshman course based upon the research idea will do all his subsequent college work with a liver spirit, and by the time he is a senior he and his fellows will be swinging along at a pace and with a success which will make the college unrecognizable to the "Old Grads."

But when we begin leading freshmen by research methods we must have college teachers full of the research spirit. This seems to me the real strategical—(Pardon the hackneyed word; it is exactly the word I wish to use.)—this is the real strategical point at which to begin the revivifying revolution, with the college teacher. Encourage him in his individual research interest and enthusiasm and encourage him to bring his pupils into the research game by using with them methods of teaching founded upon the research ideal. The thing once started will be contagious from

teacher to pupil, from teacher to teacher and from college to college. Put in the yeast and let it work until finally the whole lumpish system from the kindergarten through the college is leavened and made alive. The kindergarten and the university, as they are, are less open to criticism from the standpoint of need of the research habit of mind, but neither of these, the foundation and the summit of our educational system, is beyond strengthening in this direction. Think of the satisfactions in university work when the students enter well established in the research habit.

The idea seems more or less prevalent that college students are not competent for worthy research even under guidance, and, of course, research which is not worthy may be worse than no research at all, doing positive harm by encouraging low ideals. To speak plainly, this estimate of the possibilities of college research is false. Certain types of problems requiring extensive backgrounds and a mass of digested and carefully compared data, are not for the college student. That goes without saying. But he may profitably undertake the gathering and the testing of even such data, if working with a more mature scholar in the field. A sufficient answer to the statement that college research isn't worth while and may be harmful is found in the research now under way in American colleges.

Let me instance merely the departments of physics in Amherst and of zoölogy in Oberlin, for both of which I happen to have data now upon my desk. Seven students published brief papers last year from Amherst's department of physics, and Professor Williams' testimony is that the special work of these students was a stimulus to all their college work and to the whole department. Twenty-one special studies by four teachers and sixteen students have been under way this year in Oberlin's department of zoölogy. It has been repeatedly shown that even a small infusion of research may be a bracer for all the work of the college.

*Post scriptum.* This paper is written from the college point of view, for readers interested in college problems. But it may be well to include a word as to another unavoidable feature in a complete plan of education.

There are, of course, children not fitted for the education suggested—feeble-minded folk and those inherently lacking in possibility of initiative. The system of education should be planned for children of desirable types, and all possibly normal children should start upon this plan. But if at any point, at the beginning or later, in the course of training planned, it is indicated that a child can not profitably continue this work, he should be turned aside into such education as will gain for him the best chance for his own welfare and for a useful place in society, however humble this place may be. If a child with slow development should later develop capacity, he should, of course, be replaced in the system at the point he would then be fitted for. Many questions naturally arise, but these can best be answered on the basis of experiment. This paper does not attempt to consider the varieties of education which may be called for. Its purpose is to emphasize the main schema of desirable American education in which all shall start and in which each shall continue so far as he shows capacity for following it.

The author has just received a letter from a friend, who has read this little paper, which contains comments with which he so thoroughly agrees that he asks to be allowed to append them. This friend wrote without thought of being quoted, and has had no opportunity to modify with a view to publication, so I do not mention his name.

"A large proportion of the time devoted to education, in college as elsewhere, must necessarily be given to discovering and gripping in memory the results of other people's research, and this, *if done efficiently, must be done in the spirit of research and with the research mental attitude and the research method.* It is no answer to your program to say that college research can not add directly much that is worthy to the sum of human knowledge. This is more or less true, but it has no bearing on the subject of your paper. The actual addition to human knowledge by the research of college stu-

dents is not, it seems to me, the most important purpose of their research. Its most important purpose is the education which comes from the practice of the research method in the research spirit and with the research mental attitude. Its most important value is that it helps students to grasp the efficient way to study the results of the other man's research and to gain a growing enthusiasm for reaching out with initiative and independent judgment into the field of the unknown. In the long run such a program is bound to add immensely to the valuable research output of the world even if it yields no valuable additions to human knowledge as a direct output of college research.

"But there is an immense field of small and *comparatively* unimportant problems which are appropriate for college students and which really must be solved by someone. In this field the college student can add a lot of valuable data to the sum of human knowledge. Such problems could be organized by colleges in cooperation with one another, each taking its appropriate share of such work. All such work should be done at least in triplicate by three different colleges independently, as a check on its accuracy, before it is added to the world's data for thought, and as an incentive to conscientious accuracy on the part of the student and as an addition to his fun through the knowledge that others are working on his problem and that ultimately his results will be checked with the other fellows' results. Real service in adding to human knowledge could be accomplished in this way. But it seems clear to me that only a comparatively small part of the college student's time could wisely be spent in such research. The goal of such research is far less the value of the output by the student than it is the value of the input into the student.

"All this, I take it, is in your paper, but it seems to me the paper would be strengthened by a fuller emphasis upon such considerations."

## II

WALDO G. LELAND

Permanent Secretary, American Council of Learned Societies

There appears to be a consensus of opinion on the part of those who have most recently considered the general problem of the place of research in the undergraduate college that it has at present very little place there, and that it should have more. The inquiries conducted by Professor F. A. Ogg for the American Council of Learned Societies,[1] and for the American Historical Association by Professor M. W. Jernegan,[2] reveal not only a very general indifference on the part of college administrations to research as a recognized and desirable activity of members of the teaching staff, but also a considerable apathy on the part of the latter.

It may be granted that the primary function of the undergraduate college is to assist in what we optimistically term the education of the youth who attend it, ostensibly for the purpose of benefitting, however passively, from that process. It is a fair question, therefore, whether this function is better and more effectively performed if those who are endeavoring to impart and interpret acquired knowledge themselves take some part in its acquisition.

Although the question put in this form seems almost to answer itself, the problem is complicated by various uncertain factors. Most of us can recall professors who were noted for their original work but whose classroom instruction was almost farcical, and we can also recall professors whose brilliant classroom talks owed their inspiration only to the most vicarious sort of research.

But these cases represent perhaps the two extremes, the exceptions that help to establish the rule, which is that

[1] *Research in the Humanistic and Social Sciences*, 1927.

[2] "Productivity of Doctors of Philosophy in History," *American Historical Review*, October, 1927. Association of American Colleges *Bulletin*, Vol. XIII, No. 2, April, 1927.

the teacher who can inject into his instruction a note of personal authority and experience is far more likely not only to impress his subject upon the attention of his youthful auditors, but also to inspire in some responsive mind—if he be so fortunate as to have any such before him—a zeal for knowledge for its own sake rather than for its attendant credits.

Few words have been more abused during the last decade and a half than the word "research." It has been employed to describe intellectual or near-intellectual activities that range all the way from addressing a query to a syndicated question-and-answer column to the solution of Maya chronology. It has become a word to conjure with in the advertisements of cigarettes, dentifrices, and flesh reducers. Even in our universities, much that is of little consequence has been dignified by the name of research, and much unfruitful labor has been carried on in its name.

But the abuse of the term should not be allowed to discredit what it stands for, nor to belittle the value of real research, nor to obscure the fact that research is not only an absolute condition of all advancement of knowledge, but of all that underlies modern civilization.

To the college teacher it may often appear that he has little opportunity for carrying on any original investigation of significance. Even if a heavy schedule of teaching and administrative duties leaves him the time or the strength for such work, he does not, in most cases, have ready access to the collections of material or to other necessary facilities which the great universities and the centres of scholarship provide.

It is therefore important to make it possible for the college teacher who has an aptitude for original productive work to carry on his investigations under conditions that do not hopelessly handicap him. In humanistic research, dependence is chiefly upon the contents of libraries, archives, and museums. These can be made accessible in two ways: the first is by bringing them to the scholar when that can

be done by means of inter-library loans, or by recourse to some cooperative arrangement, such as that maintained by the Modern Language Association and the Library of Congress, for securing photographic copies of necessary material. The second way is to enable the scholar to use the materials in their respective depositories, and to this end there have of late been made available grants in aid of research, of varying amounts, for the assistance of competent scholars who are engaged in worth-while investigations.

Of equal importance is the problem of selecting suitable subjects for investigation, and here the college teacher may have recourse to his professional colleagues, especially to those who are associated with him in the learned society that is devoted to his particular field of study. Great advance has been made by these societies of late years in surveying fields of research, in suggesting profitable subjects for investigation, in coordinating and relating the work of different scholars, in organizing cooperative undertakings of research by groups of scholars, and in promoting the preparation of essential tools and aids.

The college teacher often finds that possibilities of engaging in significant research lie much nearer at hand than he was aware. The linguist may find in the dialects of his region material for studies that will contribute most usefully to our knowledge of dialect in America; students of cultural history can hardly fail to find unutilized resources all about them, and in many other fields similar situations will be found to exist.

The outlook for research in the undergraduate college is therefore seen to be much brighter than at probably any time in the past. Neither the opportunities nor the materials are lacking, if only there are scholars to take advantage of them—scholars to whom a useful contribution to knowledge appears as a goal worth seeking, and who are able to inspire with similar enthusiasm some of those from among whom the scholars of the next generation must come.

## III

EDWIN B. WILSON

President of the Social Science Research Council

The Social Science Research Council is, of course, interested in the stimulation of research in the social sciences at all levels. We have a system of grants-in-aid and a certain amount of money available for projects which taken together are available to help research at a somewhat advanced professional level, and our fellowships cover the immediately post-doctoral phase of the study and research of the young professional, but the situation of the graduate student working for his doctor's degree and that of the undergraduate who may be turned in his interest toward the social sciences are matters of real concern to us, because we realize that the stimulation of research in the social science field depends considerably upon the intellectual quality of the young people who turn their attention to the social sciences. It is therefore important to see that the undergraduate instruction, and for that matter the school instruction, in the social science field is suitable not only to lay a foundation of knowledge of the field but also a proper attitude toward the field.

It is certainly true of the past that to a much larger extent than in the natural sciences the instruction in the social sciences has been dogmatic and *a priori* rather than experimental or observational and *a posteriori*. It seems to me that the research spirit, which is essentially that of finding out the facts and drawing inferences from the facts, must be worked down from the graduate into the collegiate level and perhaps even down to the school level. We do not attempt to teach physics and chemistry in the schools today out of textbooks without a laboratory. In the colleges we have long laid great stress on laboratory equipment in the natural sciences. Some way must be found to enliven the teaching of the social sciences with those opportunities for

observation and fact-finding which are the basis of research and must become the basis of instruction if we are to foster as well as may be the research attitude through our instruction.

It seems as though the Joint Committee on Research in the Colleges could well give some very careful consideration to possible changes in the arrangements of collegiate curricula which would make it feasible for students in the social sciences to do field work of some sort as part of their collegiate education in these branches of knowledge. The matter is in fact somewhat difficult to arrange. It is easy enough to fix the curriculum so that a student may have two to four hours at a stretch in a physical or chemical laboratory or in the students' astronomical observatory in buildings right on the grounds of the college. When we come, however, to field work in the social sciences, if we are to get any direct contact with the real facts and not be content with the rather dry tabulations of what may be contained in books in the library, we have to have considerable periods of free time available to the student to get into the field. Two and three hour periods here and there during the week are not satisfactory. I may add that such periods are not very satisfactory for those branches of natural science which depend on field work as contrasted with laboratory work. There are aspects of geography and geology and of anthropology which, to be taught properly, require that the student have considerable consecutive time away from the halls of his college. This problem of natural science education has not been adequately solved. A similar problem in social science education may perhaps be solved with less difficulty because the field in which the student of the social sciences works will very often be much nearer at home than the field of the geographer or geologist or anthropologist. In almost every college town there is ample opportunity for social science research in the field, and if the instructor will organize the problems of his students in such a way as Professor Cutler, of Western Re-

serve, has organized those of his students, it is not too much to hope that out of this undergraduate work there may be assembled material which can be used as a basis for the publication of research that is worth while.

So far as I can see at the moment, the difficulty is not so much in getting the students to do the work or in planning the work so that it shall be part of a related whole, as in getting the tabular view as arranged by the faculty so limbered up as to make it possible for the students to have the chance to do the work. Certainly some way should be found and we hope that our committee will be helpful in finding the way to enable serious students in the upper two collegiate years to be free enough to participate in such work and thereby to obtain not only the instruction but the research inspiration that only that type of work can adequately afford.

## IV

VERNON KELLOGG

Permanent Secretary of the National Research Council

If good research is good for the university it is also good for the college. The difference between an institution of higher learning which maintains several professional schools besides undergraduate schools, and one which does not, is about the principal difference between an American university and an American college to-day. In both research should have its place. In each the presence of at least a few men of research interest and capacity is indispensable to the maintenance of a high level of scholarly life in the institution as a whole. President, faculty, and students all are stimulated by research going on in the academic household.

This is not to disparage the need in the college of the great teacher—nor in the university either, for that matter. But the great teacher is often what he is because he

is also the great worker in the research laboratory or library. At any rate, indulgence in research by himself or some of his colleagues is not going to injure him as teacher. Recall the remark of the keen student quoted by Holmes of Oberlin, "I notice that the teaching is better when there is some research going on around the corner."

As most independent colleges—which are the colleges we have in mind when we speak of the "American college"—are smaller than most universities, the opportunities for friendly and stimulating contact between faculty and students are likely to be greater in the college than in the university. So that if research is going on in the college its spirit can readily be felt and its method come into general use.

Research has several reasons for being. One is the extension of knowledge which it presents to us. Another is the rigorous training it affords its devotees. Another is the general atmosphere it creates around itself of tested modernity, of healthy questioning, of independent responsibility, of sound culture; an atmosphere discouraging to lectures worn thin by long service, as well as to lecturers who have gained a smattering of hardly understood new science.

It is primarily for the sake of atmosphere, spirit and method that the colleges should cultivate research. Research needs the colleges less than the colleges need research. The research, if unwelcome, can go elsewhere for habitation. But without it the college campus suffers continual drought.

## V

DAVID ALLAN ROBERTSON

Assistant Director, American Council on Education

Professor Charles Richet, of the University of Paris, concluded his charming volume *The Natural History of a Savant* with these words:

> We cannot enkindle genius; but at least we can and we must give to the elite among our young men the

opportunities of becoming illustrious if they possess the divine creative spark.

The discovery of genius and encouragement of it is the responsibility of educators at every level. In the college the teacher has a special responsibility for analyzing the abilities of all students and developing them to their utmost. Those teachers will most effectively discharge their duties who are masters of their subject, artists in teaching, and possessed by the spirit and understanding of research. The best teacher is the head of an exploring party not the conductor of a tour. He keeps abreast of the latest literature in his own field and tests the reports from others by his own studies. This he does not only in the narrow fields of his own subject matter speciality but in all that pertains to the art of teaching. Admiral Byrd, like Amundsen, Shackleton and Scott, will bring back valuable data concerning Antarctica, its topography, its geology and other scientific phases. He will also bring back a highly valuable record of experience in the technique of Antarctic exploration. The teacher likewise should contribute not only to knowledge of details of a special field but to the technique of getting and using that knowledge.

The spirit of exploration exists in American colleges to a degree not yet appreciated. I base this assertion upon my conversations with teachers in classrooms and laboratories of some two hundred American colleges. Encouragement is what is needed. Only a few colleges have had the wisdom to aid the teacher who is making himself a better teacher through his own active studies. A few institutions afford grants to those who are conducting special studies within the college during the academic year. A few give leaves of absence with some percentage of salary, so that a particular project may be furthered. It would advance higher education in the United States if a larger number of institutions would more consciously stimulate intellectual vitality by fostering the free expression of the spirit of research and adventure in all students and teachers.

## VI

MARIAN P. WHITNEY

Chairman of the Committee for the Encouragement of University Research, American Association of University Professors

Has research a place in our undergraduate colleges? Some say no; many administrative officers and trustees are insisting that it belongs only to the universities. If so the college must cease to consider itself an integral part of the university and acknowledge frankly that it is an institution for secondary education, which claims only to pass on to its pupils the well established and universally accepted results of scholarship in the past. The Century Dictionary defines the university as "an association of men for the purpose of study . . . which confers degrees and which is privileged by the State in order that the people may receive intellectual guidance and that the theoretical problems of civilization may be solved." The college cannot disclaim all responsibility for the solution of these problems, for the intellectual guidance of the people in a constantly changing civilization, and at the same time claim university status. The American Association of University Professors calls the committee of which I am chairman "Committee for the Encouragement of University Research," but this implies no division between college and university, for the Association admits members of the faculties of both on an equal footing. College graduates form the major membership in all university clubs. The American Association of University Women, made up almost entirely of college graduates, claims for its members university status and for itself affiliation with the International Federation of University Women whose European members almost all hold the doctorate. Do our B.A.'s, B.S.'s and Ph.B.'s deserve the position to which they lay claim? Theoretically, our college students should

complete their secondary or general education in the first two years, or junior college. The work of the last two years, or senior college, should be of real university quality, devoted largely to the study of one subject or one major field, with training in methods of independent work, and should leave its students ready to take advantage of everything the graduate school can offer and to finish their doctoral work in two, or at most three years. This is undoubtedly the case in many of our best colleges, but why not in all? Is it not that standards in many colleges "are purely quantitative with no direct attempt at qualitative standards"; that the students are not led to think of their work as a means of learning how far man has advanced in his effort to understand himself and the universe he lives in and what still remains to be done, but only as a routine learning of cut and dried material, all too often offered them in textbook form?

Professor Frederick Ogg in his interesting report on *Research in the Humanistic and Social Sciences* (Scribner's, 1928) finds one of the most marked characteristics of the present situation to be "the drift of research away from the universities." The reasons he gives for this movement are familiar to each one of us by experience. Heavy teaching schedules, time-consuming administrative duties, salaries too small to allow for even the free use of vacation time for one's own work. There is no need to continue the list of causes which attract the productive scholar away from the college or the university to the institute which offers him full leisure and puts at his disposal every facility for doing his chosen work.

Professor Dyboski, of the University of Cracow, in Poland, after a rather extensive study of our American colleges and universities, takes a very depressing view of the situation. He believes that "the unprecedented influx of students due to the democratic urge for mass education has quite upset the traditional functions of the university." He finds the same process already at work in Euro-

pean countries, though more advanced in America, and he laments that these conditions mean "for the mass of university students nothing less than the loss even of such scanty and brief contact as the old system gave them with the world of creative activities of the human mind. It is obviously not only students but professors also who will in the future more definitely than hitherto be segregated into the rank and file and the select. Such segregation has long been a fact, especially in America, but its formal recognition is a matter of the future, and the dividing line will run between educators and those who will be freed from teaching duties to do creative work in research institutes."

It is easy to foresee the disastrous results for the future of scholarship which the loss of such men from our universities entails, but is not their disappearance from our colleges quite as unfortunate? If we let our colleges be drained of productive scholars who is to pass on the torch of learning to the rising generation? Scholars cannot be made of those who have never come in contact with scholarship, if our students do not get such contact during their college years very few will feel the urge to go on into graduate work. It is sometimes said that the smaller colleges send more and better scholars into the graduate schools of our great universities than do their own undergraduate departments. Is not this due to the fact that in smaller classes and with smaller departments the student has more chance in his undergraduate work to come in contact with his instructors and to feel their influence?

It is reassuring to know that, in spite of the discouraging attitude of so many administrative officers and of all the material obstacles enumerated above, a surprising number of scholars are working quietly in our colleges, adding their mite to the treasure of the world's knowledge, and so can give their students a sense of the joy and adventure of helping ever so slightly toward the solution of the "problems of civilization."

Research is a rare and delicate plant. It should be cherished wherever it is found. It cannot be either produced or forced by outside effort. The attempt to stimulate it by insistence on "production" as a condition for promotion leads all too often to the multiplication of shallow articles and textbooks loaded with notes devised, not to help the student, but to show the erudition of the editor; in short, it leads to quantity, not quality in production. Not every good teacher has the productive urge, the productive talent. The man who can inspire his classes with interest in what has been and what is being done to enlarge the field of knowledge is only less valuable than he who can inspire them to lend a hand in what remains to be done. He belongs to the college, too; as teacher, as administrator, he can fill a most important position, but he must understand the value of research and respect those who are engaged in it, otherwise he is out of place. As Professor W. T. Baldwin, of Illinois, says: "I do not see how anyone who is totally uninterested in research can teach satisfactorily in the upper two years of college."

There are many ways in which administrative officers, heads of departments and even colleagues can aid the research worker in his efforts. They can relieve him of administrative burdens and committee work. They can arrange for him a schedule with consecutive free hours and an occasional free semester. They can help him by small grants for clerical aid or for help in publication. Often encouragement and recognition are what these workers most need. The isolation of the small college makes it difficult to carry on research work. Small departments, often of one or two members only, do not afford the stimulus of competition and encouragement, and library and laboratory facilities are often inadequate. It is hard to keep in touch with what is being done even in one's own field, to know how to use time and strength to the best advantage, hard even to find time and money to attend the meetings of

professional societies in one's own field. Such bodies as the American Association for the Advancement of Science, the Social Science Research Council and the American Council of Learned Societies are doing fine work in helping and encouraging the isolated scholar, not only by offers of fellowships, of larger and smaller grants in aid of research under way, but also by planning large enterprises of cooperative research in which these lonely workers may share.

So we may hope that creative scholarship is not to be driven from our colleges, that the influence and example of such men is still to inspire the rising generation with the desire to follow in their footsteps. As one of the greatest American scholars has said, "You can never teach anyone anything, you can only make him want to learn it." It is not due to chance or to special talent only that Germany has so long led the world in research. She has always tried to keep even her secondary school teachers in touch with creative scholarship. The annual programs of the *gymnasium* have constantly carried articles of very definite originality and value, the work of members of the staff. Since the war an attempt has been made to have even the elementary school teachers of Germany spend one year in a university that they may come in contact with productive scholars and be able to pass on to their pupils at least some idea of what real scholarship is.

How can we Americans hope to earn or to keep a place among the nations who are carriers of civilization if even our college students never have such contacts, if all our productive workers are driven into research institutes or graduate schools, shut off from contacts with the younger generation during its most impressionable years? When such men disappear from our faculties our colleges will become merely secondary schools and our supply of productive scholars will dry up at its source.

## VII

JAMES L. MCCONAUGHY

### MEMORANDUM ON RESEARCH AT WESLEYAN UNIVERSITY

*Editor's Note:* The Editor has asked President McConaughy for the privilege of printing the following paper because he believes members of the Association will greatly appreciate it. The paper was not written for the BULLETIN. Indeed President McConaughy had no thought of general publicity when he wrote the memorandum. It does indicate, however, what is possible in one of the smaller undergraduate colleges in the field of research. As such it is submitted with the belief that it will have a most stimulating effect.—*R. L. K.*

Wesleyan was one of the few—perhaps only—New England colleges of liberal arts to stress science and scientific research from its earliest founding. The inaugural address of the first President, Wilbur Fisk, voiced the principle upon which the University has always been conducted, that science and classics are equally valuable in collegiate training.

In spite of great limitations during the pioneer days of the college, (due to lack of equipment and overloaded teachers), Wesleyan has vigorously encouraged research, and has a notable list of accomplishments to the credit of her science teachers. It is our feeling that research by faculty members in all departments is essential if they are to continue to grow. A good teacher who is not also, in some way, a good productive student, is almost so rare as to be undiscoverable. Prime Minister Baldwin did not overstate the matter, when, in a recent address at the University of Birmingham, he said that the modern spirit of scientific discovery and research was really another Renaissance. Apart from the actual accomplishments, this spirit on the Wesleyan campus certainly has influenced those who have gone from Wesleyan into teaching, in school and college.

From the founding of the college, research has had its place at Wesleyan, and the experimenter has been encour-

aged. In physics, chemistry and biology the faculty have made notable contributions, which have been recognized by the United States Government. The present science faculty at Wesleyan is continuing the spirit of research. Professor Cady is a notable radio research engineer. He is one of the directors of the international radio society; during the war he assisted the Navy in problems connected with secret signaling by high frequency sound waves under water, and in the detection of submarines. From this work he made certain discoveries regarding the use of quartz crystals as standards for high frequency for use in radio, just as tuning forks serve as standards of pitch for musical instruments. Since then he has used this same principle in many other phases of radio. His work is so significant that the General Electric Company and various radio interests have sent young men to serve as research assistants under him. The Navy, because of the significance of his work, is providing the quartz crystals. The two other men in the Department of Physics are carrying on investigations along this same line, with Professor Cady.

Professor Schneider, head of the Department of Biology for ten years, has been doing pioneer work in physiological reactions to high altitude, lack of oxygen, and exercise. During and after the war, he was advising physiologist in the Army School of Aviation Medicine, using there many Wesleyan graduates as his assistants. He wishes to go further with his experimentation on this line and in the physiology of exercise. Professor Goodrich, his colleague in biology, has made studies in inheritance, and is in charge of this work at Woods Hole each summer.

In astronomy, the unique equipment which Wesleyan has and the presence of a research associate astronomer giving his whole time to observation and study, has resulted in a notable series of photographic plates, a special study of the eclipse of five years ago, and, incidentally, the discovery of a new comet. The Observatory, carrying on all the time significant researches, has a tonic effect on the whole campus interest in scholarship and research.

Professor William North Rice, who was connected with the Department of Geology for over forty-five years, made a notable contribution to our interest in research and established geology as one of the sciences most attractive to Wesleyan undergraduates.

Professor Hoover in chemistry has done pioneer work in the absorption of carbon monoxide and in devising a detector for it. He has also done research in catalytic syntheses. Professor Hill is doing special research in poison ivy, its chemistry and so on.

The men teaching the humanities at Wesleyan are also engaged in scholarly research. Among the recent results worth noting are the following. Professor Heidel has completed the manuscript of a book on the classical festivals, particularly in relation to the observation of special days in the early Christian church; this manuscript is being published, particularly through the assistance of the Carnegie Corporation; through a special grant, he has been freed from all teaching responsiblilities to devote his entire time, henceforth, to research and writing. Professor Hewitt has been writing articles on the relation of ancient religious ideas and early classical history; as secretary of the American Philological Society, he has been giving a great deal of time to editing their publications. Professor Farley is completing a book on *The Influence of the American Indian on the Romantic Movement in English Literature,* a field never before studied. Professor Snow has produced two books of poems within the last two year. Professor Woodbridge recently edited a book of Charles Lamb's *Essays* and frequently contributes book reviews and articles to the literary journals. He is also writing a life and criticism of Sir William Temple; he is joint author of the recently published life of Stuart Sherman. Professor Conley had a book published by the Yale Press on *The First English Translators of the Classics.*

Professor Dutcher has been in charge of a very significant bibliography *Guide to Historical Literature,* which is

being prepared by the American Historical Association; twenty of the twenty-six sections are now complete. Professor Bell is working on a book on the life of Lord Palmerston and is doing research work on the diplomatic aspects of the British Expedition to China in 1860.

Professor Fisher is writing articles on the settlement of railroad labor disputes, ultimately probably to form a book. Professor Williamson is becoming well known as an authority in the field of taxation. He was asked to give six months last year to advise the National Industrial Conference Board, in relation to the proposed modification of the Federal tax law; he has gone to Princeton once a week for the second semester to teach an advanced class there in taxation; his studies will form the basis for a new book on this field.

Various articles are now in process of completion in the modern language departments; and the teachers of mathematics are making statistical investigations which will ultimately be published.

The efforts of the University to assist in research and scholarship have resulted in the following accomplishments. For three of the sciences, (chemistry, biology, and physics), there are funds, the interest of which provides a small amount for research, and apparatus. There is a similar small fund, the principal of which is still available, in astronomy. Biology has recently received a $75,000 research fund. For twenty-five years the college has provided, for the science departments, a full-time skilled mechanician, who has assisted in making much of the intricate scientific apparatus used in various researches here. Within the last year a research committee of the faculty has been established, to assist in any way possible in scholarly research and productivity. The trustees have appointed, although without a permanent method of financing it, a research associate in astronomy, who gives his entire time to research. During the second semester of last year, Professor Cady was relieved of all teaching in order that he

might continue his research work. We are also providing a small sum for stenographic assistance, copying of manuscripts, and so on.

The possibilities of worth while research in a small college are shown in the following comment made a few years ago by a scientific organization:

> "The most interesting thing about this institution, scientifically speaking, is the spirit of its science teachers. However meager their opportunities or ability to do important original work, they maintain a keen interest, a sympathetic attitude, and an eagerness for research opportunity which are both refreshing and encouraging."

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## A JOURNAL OF HIGHER EDUCATION

In January there appeared in the field of higher education a welcome newcomer in the form of *The Journal of Higher Education*. As a distinctly professional journal, to be published ten times a year, it will fill a real need for additional media devoted primarily to problems of college education. It is proposed to present reports of the most significant investigations in the instructional, administrative, personnel and curricular problems in all branches of higher education.

The issues which have already appeared have offered a well balanced diet of articles on the various phases of higher education, written by recognized authorities in their respective fields. If *The Journal of Higher Education* can maintain this high standards in its offerings it will render a valuable service in presenting the results of contemporary scientific investigations and analyses of college instructional and administrational problems.

Not least among its contributions are the several departments devoted to abstracts of various studies too lengthy for report in full, to brief news notes about significant developments in institutions of higher learning, and to the selection and annotation of pertinent educational articles appearing in non-technical magazines.

# RESEARCH METHOD OF TEACHING SCIENCE

JAMES M. ANDERS

Chairman of the Committee on Instruction, Board of Directors, Ursinus College.*

The present status of science teaching in American colleges and universities, though by no means to be viewed with alarm, is far from being wholly satisfactory. An ideal condition would demand that every teacher should be an investigator in his particular field. This would mean faculties made up of men with the research spirit and the ability to transmit that spirit to their students. Under such men, the student could not fail to absorb the fundamental principles underlying methodology and original investigation. If the practical recognition of the necessity for the universal introduction of the research method of instruction were fully appreciated by our colleges, it would give a nation-wide impetus to the advancement of human progress, for in my view the undergraduate is in that period of life in which he is most susceptible to the influences that stimulate his creative powers.

But though we are as yet far from the goal, toward which, however, our educational forces should, and doubtless will, be moving in the immediate future, it can be rightly claimed that American scientific investigation has done its full share for human welfare. Thomas Jefferson Wertenbaker well says, "In medical research this country has done noble work." Let us not forget, too, that the Wright brothers gave the world the airplane, whilst in exploration such names as Byrd, Peary and William Clark loom large in history.

There is, therefore, nothing of great importance to criticize in the present educational situation, if we except the

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lack of encouragement of training that fosters productivity. Dr. John C. Merriam in discussing "Research as Revealing an Attitude of Mind," expresses the belief that every normal individual is born with some endowment of research spirit. In accord with this opinion and in view of the prominent part played by science in human affairs, an increasing growth of systematized experimental research and training in the application of new discoveries to human uses in our colleges and universities is to be expected, to prepare their graduates for service in the industries and professions.

Our colleges and universities have been, in recent years, stressing the teaching of science and providing laboratories for the purpose until its supremacy over the humanities in their curricula may be expected within the near future. The recognition of the growing need of men trained in research has been one of the chief causes of this expansion of the scientific side of education. It may, therefore, be contended with reason that a readjustment of the college curriculum in such a manner as to bring about the adoption of the research method of study together with a corresponding lessening of the absorption of ready-made facts by the student, is of pressing importance.

Every college should cultivate a scientific atmosphere and offer laboratory instruction in the general principles of a selected group of such sciences as chemistry, biology, physics, botany, physiology, mineralogy and comparative zoölogy. Thus armed, the student is ready, under proper guidance, to embark upon training in scientific research. Says Bernard De Voto* in discussing "Tools for the Intellectual Life," "The man who is capable of living the intellectual life is one who, to a greater degree than common, has learned to think impersonally." He continues, "To some degree, small but greater than anywhere else, a man can learn in a laboratory to be impersonal." It may be pertinent to state here, that those charged with the educa-

* *Harper's Magazine*, October, 1928.

tion of the students in our secondary and preparatory schools are giving more and more attention to scientific branches. In short, we have entered upon a truly scientific age and are beginning to appreciate the fact that to science all modern material progress may be reasonably ascribed.

Says Herbert Hoover, "The more one observes, the more clearly does he see that it is in the soil of pure science that are found the origins of all our modern industry and commerce. In fact our civilization and our large populations are wholly builded upon our scientific discoveries." In this connection it is interesting to note that in twelve years "our individual industries have increased their research laboratories from less than 100 to more than 500." These laboratories are devoted to the making of discoveries and the application of known scientific facts to the numerous problems of industry, commerce and agriculture. And it is to the utilization for human progress of established truths in even greater degree than to pure fundamental research, that college students should, as a whole, devote themselves. To the gifted few who possess that quality of mind which enables them to successfully explore the secrets in nature, however, should be given an opportunity to make the venture.

In the opinion of Mr. Henry Ford we are at present entering upon an era of great industrial development and this he avers will be led by trained scientists. College authorities no longer need to hesitate to assign to science its proper position on the roster on religious grounds, since it has been readjusting itself to spiritual thought in such a manner as to preclude the possibility of its destroying reverence and faith. Sir William Bragg, in his presidential address before the British Association for the Advancement of Science (1928), said: " 'Science,' as a young friend said to me not long ago, 'is not setting forth to destroy the soul of the nation, but to keep body and soul together.' " It may be justly claimed that religion has been simplified and purified by the advancing knowledge of the natural world. Let

us then open the minds of our young men and women to the light of scientific truth, which is the material of the higher education—the education of the soul.

From the foregoing facts, it is obvious that the program in education in general is in a transitional stage of development. This is likewise true of the terms of admission to our colleges and universities. For example, the old plan consisted of appraising a secondary education in terms of figures; this is giving way to the so-called new plan which, in addition to an examination, investigates the candidate's school record for four years. In this connection William L. W. Field* calls attention to other requirements on the part of the candidate, whose tastes and aptitude, as manifested outside of the narrow curriculum, are considered. He points out that not less than thirty-seven colleges and universities have recognized the new plan since it was first adopted by Harvard University in 1911.

Mr. Robert Cooley Angell's book, entitled *The Campus: A Study of Contemporary Undergraduate Life in the American University,* stresses the fact that the general level of intellectual interest among undergraduates is low. "A burning desire for knowledge," says he, "is relatively infrequent." Nothing could more vitally stimulate the interest and intellectual curiosity of the students than the new research method of teaching. In this connection Dr. George L. Omwake, President of Ursinus College, pertinently observes: "No classroom exercise will be dull when the spirit of original inquiry charges its atmosphere."

An ever increasing number of departments of human knowledge regard the research method of approach as a valuable asset both from an informational and inspirational viewpoint. Since there are few branches of knowledge or human activity that have not need for the help of trained research workers, it follows, *a priori,* that no undergraduate college can be considered well equipped which does not afford a modern research bureau under the direct super-

* *Atlantic Monthly,* July, 1928.

vision of a competent laboratory director. Such a technical investigation course would, doubtless, attract a reasonable number of gifted students.

Those whose ambition, I repeat, begets a desire to take up original research should be given free reign to prove the genius that inspired their predilection for this method of study. Some of these students, even if denied an opportunity at college, would no doubt pursue their way toward the goal they had set for themselves, later in life, but they might justly feel aggrieved at the enforced pause in their progress.

I am not advocating the teaching of science to the exclusion of the humanities, but true it is, that in the past, the former, or science, has not, as it long should have done, kept pace with the latter in the college curriculum. Indeed, it is to be recollected that teaching by the research method in our colleges is still in an embryonic state. As the research method of study has increasingly become a subject of importance in our educational system, it has naturally caused certain questions to arise. In the first place, How active a part should the colleges take in the modern research method of instruction? As stated above, research studies in social and scientific fields should be available for all students; those showing fitness and zeal, and having an adequate background made up of courses in physics, biology, chemistry and mathematics should have offered to them the advantages of research in pure science.

In the second place, Can it be introduced into colleges without their incurring enormous expenditure of funds, as well as unjustifiable wastage of equipment and time of the laboratory directors? It must be admitted that research work is costly and the college is not embarrassed by a financial surplus, but it is a matter of common observation that importunities for financial aid to carry on research work are more successful than those made for almost any other educational purpose. Then, too, close scrunity and supervision of a suitable college budget, in which research re-

ceives its proper share, will obviate undue wastage. Unfortunately, it often happens that those most directly interested in this form of teaching are not consulted, and yet how true are the words of James Russell Lowell, spoken long since: "The fame and glory of a college depend on the teachers who teach therein." The minimum requirement for such work should be fixed, since it would be unwise and unproductive of good average results, unless the undergraduate student possessed sufficient preliminary training. Thoroughness and an inspirational quality are to be aimed at rather than the mere teaching of technical procedures.

The director of the research laboratory should be a teacher. Practically all of the great masters of the past have been scientific investigators, and many of them have been among our best teachers. Members of college faculties who hold the Ph.D degree, and there are many such, have received more or less training in research methods of study, but in their work as teachers they have been, as a class, following the line of least resistance so that they neither produce themselves nor teach their students to produce. Nothing strengthens and stimulates a department of an undergraduate college or professional school so effectually as placing at its head a research worker, who is at one and the same time a teacher.

It is fair to assume that college graduates would be best prepared to meet life's problems if they were trained in research methods; they could accurately collect and evaluate and correlate facts appertaining to any department of the curriculum; their thinking would assume a wider scope and more constructive. More than this, they would thereby attain to a higher level of initiative, conception, and vision. It would seem wise to suggest that a "Society for the Encouragement of Research" be organized in our colleges. Such a society would quickly communicate the idea so precious to forward looking educators and insure a notable improvement in instruction.

It is clearly the duty of every educational institution worthy of the name to contribute what it can to the scien-

tific enlightenment of the world from its own research laboratory. No college can keep in the path of progress that does not seek new truths by attempting to make scientific discoveries, which are only possible through painstaking, well directed experimental methods. The research method of teaching will inflame the student's zeal, if he be fortunate enough to possess imagination and initiative, for the mastery of the technique whereby scientific discoveries are made possible, and encrust his efforts with the spirit of idealism. He passes from a passive human being to one with a passion for seeking after the unknown—an active agent in the educational process.

One of the marked advantages of the general adoption of the research method would be the replacement of mass education by individual instruction. It would obviously create a more intimate relationship between teacher and pupil, with free discussion and interchange of views on the problems investigated. It must be recollected that there are students who, though willing and earnest, lack the ability to accomplish creditable results. In such instances there should be no hesitation in advising a discontinuance of the method of study.

There are innumerable problems awaiting solution by experimental proof, which must be attacked from new salients. The question naturally arises, Shall the college student who has a strong desire to pursue original research be denied an opportunity to do so? By the same token, in the event of his taking a medical course, is he to be required to postpone the gratification of his desire to enter upon such work five years longer, or until he is licensed to practice medicine, as at present?

If we insist upon the completion of the student's training for a professional career before admitting him to a research laboratory, are we not robbing him of some of his chances of making notable discoveries? Nature reveals her secrets with great reluctance and laboratory investigators must, as a rule, carry on for many years in order to make

important discoveries. Those students who are found by a competent director to possess the proper quality of mind to undertake such work should be given an early opportunity, I repeat, so that they may devote all of the creative and imaginative periods of their lives to the task. The research attitude of mind appears not infrequently in undergraduate college students of the junior and senior grades.

Fortunately, there are indications of a sharp trend away from the idea until recently held, that research should be confined to universities. A student in an undergraduate college who has been living in a science atmosphere and who has become acquainted with approved research methods would bring to his subsequent work, of whatever nature, the vitalizing enthusiasm of originality. To foster a research atmosphere in our colleges, therefore, is to be advised and encouraged. Unless the student be inspired with a passion for research, he will, if he enters upon his life-work immediately after graduation, be handicapped during his whole life so far as constructive thought and action are concerned. On the other hand, a limited acquaintance with the technique and practical usage of the research method gives him, in many instances at least, a start toward further researches. Of course, the majority of undergraduates simply desire to "get by," and such would fail to continue postgraduate efforts in the field of research. Brilliant and inspiring examples of individual achievements in original research are to be found both in the ancient and the modern world among the young graduates. Let one instance suffice; Frederick Wöhler who made the epochal discovery of synthetic urea at the age of twenty-four years. What is and has long been needed, however, is that the spirit of scientific inquiry shall imbue the student body of our colleges, as a whole, with an unselfish zeal to advance human knowledge and welfare.

It is unquestionably true that the more a college does in research the greater the productiveness and, consequently, the inspirational power of its faculty, from which the stu-

dent body, in turn, derives its passion for research and service to humanity. Nothing would be more potent to overcome staleness of faculty and student body than the introduction of modern research methods of study. The progressive college demands, therefore, the presence of one or more research workers in its science faculty. There should be put forth a united effort on the part of our colleges to secure and hold such men. It goes without saying that other factors of importance needed to obtain satisfactory or gratifying results are an adequate physical equipment with suitable apparatus and an appropriate science building. Encouragement, in the form of endowments, should not fail the efforts of colleges to carry out these aims. The research method of study and investigation should be enlarged to include the prompt practical application of discovered facts. Too often well established scientific discoveries fail to be translated into human uses for human welfare until after a long period of delay—often many years. Fresh discoveries should be promptly sold to a world that needs them.

On the other hand, it must be kept in mind that the true scientist ever seeks to verify his results in every reasonable manner before publishing them to the world. The reputation of a college is dependent, in a marked degree, upon the degree of care and caution exercised over the verification of its research work. The same rule of procedure should govern the individual research worker; be he graduate or undergraduate, he should be taught to take every precaution against too hasty generalizations, by checking up his original findings. As pointed out by Sir William Bragg, however, it should be recollected that new discoveries do not, as a rule, tend to nullify previously accepted truths. "By no means is that which is old to be thrown away. It has been the best possible attempt to express what was understood at the time it was formed." He continues: "It is by a series of successive steps that we approach the truth, each step reached with the help of that which preceded it."

Those graduates of a liberal arts college having had training in research methods who enter medical, dental, pharmaceutical or technical schools are specially well fitted to pursue their professional courses with the freshness of creative concepts and to continue original observations. This is particularly true when they are attempting to reach the heart of the more obscure scientific problems that invariably present themselves; these are robbed of their terrors by the joyous hope that their solution may lead to more or less important discoveries. Quite aside from notable productiveness, the mere inculcation of the spirit of the research worker pays, if only by giving the student "an insight into the scientific method of collecting facts by many accurate, unbiased observations, of classifying and comparing facts, of explaining the facts with a theory of generalization, of rigidly or honestly testing the theory and of using the tested theory to predict future behavior."*

Our educational institutions are obviously becoming alive to the importance of giving to the teaching of science its proper position in their curricula, but they have been slow to recognize the significance of original research as a means of exciting the student's interest in his work. As I have already pointed out, not only those graduates of liberal arts colleges who are planning to enter medical or technical schools are helped by preliminary research training, but all others, since all who are taught the method of patient, diligent inquiry demanded by research, will be aided materially in the solution of problems which await them in business and industry as well as in the professional walks of life.

We have still a long step to take before the interrelations of the usual laboratories of physics, chemistry, physiology and biology will have been satisfactorily worked out. It is now recognized that a speaking acquaintance with physics, physiology and chemistry is necessary to the study of biology. Just how much knowledge of the physical sciences

* Harry N. Holmes, *Science*, June 1, 1928, p. 539.

the beginner in scientific research should possess is not definitely settled, but we may feel confident that wider experience with the research method on the part of our colleges will yield the desired answer to this question.

In concluding, the college that provides itself with laboratory facilities, but does not institute a research bureau, fails to inspire and enrich its student body with the creative atmosphere so necessary to straight thinking and productivity. Institutions of learning have been too generally content with mere fact-cramming, while their vapidity has become more and more evident. On the other hand, life and progress and growth are born of properly equipped and directed research bureaus, embracing as many subjects as possible. The changed order of things educational will, doubtless, cause those institutions which do not produce and do not foster research to vanish like "a creed outworn."

It is pleasing to relate that our colleges and universities are endeavoring to arouse the spirit of inquiry in the student body at the present day. The student is encouraged to carry on an independent investigation, in all branches of learning. Thus will the whole body of learners become imbued with the scientific spirit which alone can awaken and stimulate the quest for real knowledge.

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## FRENCH SUMMER COURSES

The University of Paris announces the 1930 French Summer Courses at the Sorbonne. Travel and study are combined to meet the needs of American teachers, and courses are evaluated for the transfer of credits to American colleges and universities. Courses are offered for those now holding the M.A. degree, as well as for those holding the A.B. degree. Full details are given in a recently published bulletin, copies of which may be had by addressing requests to M. L. Boss, 717 South Beech Street, Syracuse, New York.

## ATTACKING PROBLEMS OF INTELLECTUAL ACHIEVEMENT

That wide-awake colleges are astir in all parts of the country is evidenced by the following gleanings from the Association's daily mailbag.

### A President's Message to His Faculty and Instruction Staff

I. At Baldwin-Wallace College we are aiming to establish standards of scholarship and a spirit or atmosphere of scholarly ideals. We are seeking to orient the students who come to us out of the typical high school attitude to the college attitude towards study and intellectual endeavor. We are trying to emancipate our courses and method, so far as the nature of the subjects will permit, from the text-book, *memoriter* method, to that of thoughtful and independent approach to an assimilation of any and all intellectual material and interests. We seek as a major educational objective, the stimulation of intellectual interest, the awakening and the disciplining of curiosity, the encouragement of originality, and intellectual self-confidence on the part of the student.

One of the most important adjuncts and agencies towards the desired ends of educational discipline is the book laboratory yclept the college library. May we not and in most subjects should we not encourage far more extensive use of the college library and through our library draw upon the Cleveland Library and the County System more than we do; and, to this end, require more reference reading with less specific text-book assignments?

In the sequence of courses in the several departments and in the correlation of courses between the departments, we are seeking a development of our curriculum so that students will be guided naturally into consistent groupings of

the subject matter of their general courses in college, resulting in each case in the selection of a major and supporting minors that will lead to a reasonably unified college course, while, at the same time, requiring of each candidate for the bachelor's degree a breadth that can only result from introducing him into each of the major fields of intellectual interest.

No student should qualify for the bachelor's degree who has not become intelligent as to the meaning of the scientific method, the more modern approach to all social problems, the nature of representative government, the method of historical studies, the field of literature, and, last, the philosophical approach to the problems of life, and, to some extent, the applications of economic principles and the known laws of nature in the business and professional world and in home-making, and the use of all knowledge as means of self-expression, especially in human speech and writing. with all this granted, four years is little enough time for a college career, if an educational program is to mean what it should.

II. Concerning the function of the Christian college as a place where it may be assumed the religious viewpoint in the outlook upon the universe and upon life is maintained, the Christian philosophy of life frankly stated and developed, and in whose faculty will be found men and women concerned sincerely for the spiritual welfare of students, it needs only to be said that the method or methods of bringing to bear effectively upon student minds and hearts the just estimate of spiritual values in character and life, and the enlistment of young life in the interest of spiritual faith and spiritual ideals, become the serious obligation of the faculty and the administration of any Christian college.

The fine service the so-called small, Christian college has rendered through the years is evidenced by the relatively large number of men and women sent forth with noble ideals and strong character. We must keep in mind that

as teachers we are concerned not only with the specific work of teaching subjects but the far greater work of inspiring young men and women at their most impressionable age. We must maintain scholarship standards and we can and should and I believe are, in some important aspects of the educational work to which we are committed, rendering a high grade service to our youth.

We hear a great deal in this day about weeding out those not of high grade talent and selecting only the best as gauged by scholastic records and intelligence tests. But should we not recognize that the college is more than a gathering place for the intelligentia? Do we want an intellectual aristocracy? Should we not base our judgment of fitness to enter college and to remain there for a normal four-year period more largely than we are tempted to do, upon faithful, earnest, hard work? The mediocre student may get from his college course very great advantage contributing greatly to his later usefulness and happiness.

Our great business is the training of young men and women to integrity. We must open their minds to vistas of truth, beauty, and goodness that challenge to endeavor. So far as in us lies to do so, we must combat the cynical spirit, the brutal materialism of the age in which we live. Studying the mentality of apes and ants and donkeys may be interesting and even amusing, but is no sufficient substitute for the appraisement of spiritual values. In its ultimate analysis our task is a spiritual one. Many an alumnus of many a college has arisen in his mature years to call some teacher or teachers blessed, not primarily because of information received in classroom or laboratory, but because of life-long inspiration to noble living. We are dealing in college with immortal persons.—*Albert B. Storms.*

A President's Program at the University of Chicago

*Undergraduate Colleges:*

The undergraduate colleges are here to stay and are to be improved. The plan is to offer a kind of undergraduate education such as the state universities are not prepared to give, and to develop the very best methods of undergraduate education

Thus the undergraduate college is an indispensable member of the trio, Colleges, Graduate Departments, and Professional Schools. The college is not a tolerated younger brother. He has been taken into the firm and is there to stay.

Among the items of improvement planned are:

Increasing the national character of the student body by scholarships and by making it clear to prospective students that the University of Chicago has a distinctive, unusual, and worth-while undergraduate program.

Making possible through development of dormitory life the education which comes from acquaintance of one student with another.

Giving better instruction to the undergraduates. As an illustration, in the Department of English full-time instructors are to replace part-time assistants. Thornton Wilder, author of *The Bridge of San Luis Rey,* is dealing exclusively with undergraduates.

*Our Graduate Departments:*

Dividing the training for Ph.D.'s who are to teach from the training for Ph.D.'s who are to be research workers in industry or university fields. Giving those who are to be teachers all they are getting now as well as more knowledge of teaching methods. Giving the strictly research workers more training in their specialties which they cannot now receive because they are massed with other graduate students with different objectives.

*The Professional Schools:*

In all the professional schools research will be continued and developed because of the increased call for research in

all professions. The schools will, however, also develop the technique of professional training.—*Robert M. Hutchins.*

### New Incentives to Intellectual Life at Mills College

We find by far the greatest incentives to intellectual life on the part both of faculty and students are the comprehensive examinations in major departments at the end of the senior year and the independent study plan. A six-hour comprehensive examination in the major field is required of all candidates for the bachelor's degree. The examination supplants the regular final examinations given at the end of the second semester, senior year. It can readily be seen that such an examination makes the work throughout the student's college career more meaningful and demands more profound study than that required for a semesterly test over work which once passed may all too readily be forgotten. The comprehensive examination also causes greater effort on the part of faculty in making their teaching vital and enduring.

Advantages in the comprehensive examination plan also apply to the independent study plan. This scheme has the added factor of initiative and responsibility. Students are freed from a certain amount of regular attendance upon courses and are expected instead to concentrate their efforts on independent investigations in chosen fields. Such research naturally demands greater intellectual exertion than the study required in a course where lectures and assignments are planned and administered by the instructor. The independent study plan stimulates the faculty to further intellectual growth because the instructor may be asked for suggestions and help covering a much wider scope than that covered by a course mapped out by him. Moreover, the students who are allowed to follow the independent study plan are superior mentally to the average, and hence challenge their instructor's alertness, knowledge and achievement.

The College heartily believes in urging every student to put forth her best, not merely her second-best effort, and

any plan which serves as stimulus, however slight, is considered worth while.—*Olivia Boezinger, Assistant to the Dean.*

### The Aims of Oberlin College With Reference to Its Students

To train them in the methods of thinking and in the use of the main tools of thought;

To acquaint them with the main fields of human interest and to direct them in the acquisition of knowledge therein;

To guide them in the integration of knowledge;

To afford them intensive training, and to encourage creative activity, within a chosen field;

To prepare them for further study or (within certain limits) for occupation after college;

To establish in them the habit of continuous scholarly growth;

To develop their power to enjoy, and to create, the beautiful;

To develop their physical and mental health;

To develop their social resourcefulness;

To develop their moral and religious life;

To prepare them for intelligent effective and loyal participation in the life of the family, community, nation, and the international order.—*Oberlin Catalogue, 1930.*

### The Honors College

In the honors college we have a new way of life in American education, a creative adventure in scholarship, scientific discipline, and the realm of the mind that challenges the courage, intelligence and loyalty of teachers no less than of students. The voluntary principle has released imagination, energy, interest and responsibility that have been a revelation and inspiration to many despondent teachers. The new spirit of the honors college justifies calling the movement a revival of learning. As the principles of

the venture find expression in lives that have been lured by the beauty and reality of things of the spirit we may expect that something like reverence for culture may grow and that time will reveal ways and means of disentangling ourselves more and more from the mechanics and fictions of academic life.

The importance of environment as a factor in education is receiving renewed attention throughout the country. Scholarships awarded in open competition have done much to attract genuine students; funds available for this purpose are vital to the creation of the honors college. Dormitory quadrangles, dining in halls with reasonable dignity, and lounges like the "combination rooms" of England may do much to redeem us from a certain amount of vulgarity and nurture the fine art of living. Under such conditions a number of our students who devote leisure to somewhat obscure reading and discussion groups may prove to be a more contagious influence. The eastern undergraduate who referred to quadrangles as a means of democratically inflating social flat tires overlooks the possibility of association with quiet, reserved men and women who are not social go-getters. But perhaps the very center of the honors college is the library. "In my opinion," writes the librarian of an honors college, "the average of reading has increased twenty-five per cent in the last three years."

The effect of the honors spirit upon athletics and extracurricular activities is becoming a matter of concern to some of our students. Everywhere men and women whose spirits have caught a vision of eternal values grow indifferent to propaganda in support of over-organized, semi-professional athletics. Loyalty has a way of centering around values that one discovers and creates and other things range themselves in relative subordination to such values. The colleges of Oxford and Cambridge prove that honors men do not lose interest in athletics, while the lack of sport in the universities of Latin Europe results in habits that we should regret to form. Music, dramatics, and sports for

health, refreshment and fun are valid though subordinate features in the intellectual economy of the honors college, Many of our outstanding honors students have achieved distinction in such activities.

The spiritual motivation underlying the power developed by education is a matter of vital concern to the liberal arts college and to society as a whole. The religious life of honor students frankly does not tend to run in traditional forms of thought and conduct. Neither does ours. Voluntarism has replaced compulsion in college chapel and while the services have lost in numbers they have been enriched by a spirit of reverence, devotion, and faith in the reembodiment of the spirit that came to the surface in Jesus. The lure of his personality is, I believe, stronger than ever, particularly among genuine students. Honors work contemplates a way of life on its highest level. Science is primarily not a *corpus* of assured knowledge but a moral discipline wherein selfishness is subordinated to precise observation and reason. Imagination, too, is treasured, disciplined and refined by humanism and the arts. The bicameral mindedness of an earlier age gives way to some sense of a unity and profound meaning in creative evolution. And the student who voluntarily achieves this state of mind will be loyal to what he has created and will set other minds and hearts afire. Something like this, not a body of supposed information, but the power and love of thinking, I conceive to be the ultimate objective of the honors college.—*Frank W. Pitman, Pomona College.*

### The Inquiring Mind*

I should like to see this college of ours become one great household of intellectual inquiry. "Seek and ye shall find," should be the motto not alone in every laboratory, but in every classroom and every private study. To you students, I throw out the challenge of your own nature—the

* From an Address delivered at the opening of the Fifty-ninth Academic Year of Ursinus College.

inborn desire to find things out. Assert this nature in your work at the very start of this new year. Do not begin with the merely perfunctory getting of lessons. The professor's assignment is not to be thought of as a task. It is merely a stake driven to guide you in your course and short of which you should not stop. The field of unexplored knowledge which the course before you represents is your sole task-master. It challenges your inquiring mind. Go after the things you do not know and do not stop short of complete mastery. Be not a slave to anything, but make everything subservient to your purpose—the purpose *to know*—to make your own those elements of truth which have hitherto belonged to someone else—to your teacher, to the author of your book, or to Him alone who is Truth Himself.

No classroom exercise will be dull when the spirit of original inquiry charges its atmosphere. The joy of the professor, when he finds his students have put on an intellectual drive, will be exceeded only by the joy of the students themselves. There is a real thrill to be gotten from a mental achievement. The pleasures of pursuit and of possession apply in the getting of knowledge as they scarcely do in the getting of anything else. The inquiring mind is the happy mind.—*George L. Omwake, Ursinus College.*

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The *Eighth Yearbook* of the Department of Superintendence of the National Education Association, which has just appeared, is devoted to a thorough-going and stimulating survey of the problems of supervision in the field of public education, as viewed from an administrative angle.

## THE LONG-TERM COLLEGE PRESIDENT

Recently the statement appeared in a magazine that a college president elected in 1896 was "now the oldest president in point of service in America." Doubt as to the veracity of the statement and curiosity as to the facts led to a little research into the tenure of office of present incumbents of college presidencies. Without much effort seven were discovered whose entry upon the office antedated that of this "oldest president in point of service in America."

It was back in 1887 that Joseph A. Thompson became president of Tarkio College. William J. Boone has been at the head of the College of Idaho ever since its founding in 1891. Two years later James H. Kirkland became the chancellor of Vanderbilt University and when that same year The Woman's College of Frederick, Maryland, (now Hood College) was organized, Joseph H. Apple became its first president. Stephen B. L. Penrose assumed the presidency of Whitman College in 1894, and the following year saw Boothe C. Davis enter upon the presidency of Alfred University and Frederic W. Boatwright assume the presidential office at the University of Richmond.

All seven of the colleges presided over by these men are members of the Association of American Colleges and are on the accredited lists of the regional standardizing agencies. A further evidence of longevity in the presidential office was revealed in a newspaper report of the death last month of Charles E. Hyatt who had been president of the Pennsylvania Military College for the last forty-three years.

The long service of these college executives in this day of heavy mortality among college presidents calls to mind the fact that Eliphalet Nott filled the presidency at Union College from 1804 until his death in 1866, and that Charles

W. Eliot served as president of Harvard University for forty years, retiring in 1909 at the age of seventy-five. James B. Angell spent five years as president of the University of Vermont and then served thirty-eight more at the head of the University of Michigan. L. Clark Seelye was president of Smith College for thirty-seven years, and it was only after thirty-six years in the presidency that Mark Hopkins retired from his "log" at Williams College.

The college presidency is truly "a dangerous trade," but there are some "super-men" who have been able to meet its demands for as many as ten college generations.—*A. M. P.*

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## TEACHING OF HISTORY

The April issue of the *New Era* is devoted to the subject of History Teaching and is dedicated to the League of Nations in commemoration of its tenth anniversary. Among the contributors are: Dr. G. P. Gooch, Prof. Alfred Zimmern, C. H. B. Quennell, Dr. G. H. Green, D. Dymond, H. G. Wells, W. H. van Loon, Sydney Herbert, Prof. J. E. Lloyd, F. C. Happold, Daniel C. Knowlton.

This special issue is intended to help those who see in history teaching the possibilities of laying the foundations for peace, who believe in the necessity of training for citizenship and who realize that a knowledge and appreciation of world as well as of national history is necessary to the citizen of to-day.

Accounts of work done along these lines in state, private and public schools in England and abroad will be included, as well as illustrations of children's work in both half-tone and color.

Those who wish to obtain the April *New Era* (1/2d., post free) should send a post card to the *New Era*, 11 Tavistock Square, London, W.C.1.

# THE IMPERSONAL OXFORD*

H. P. PERKINS
Rhodes Scholar at Oxford University, 1923–26

Oxford is deceptive. Take, for instance, the tourists who have been awed by its moldering masonry. How many of them know that Oxford stone is perhaps the softest that has ever gone into architecture? How many of them know that many Oxford buildings have to be refaced frequently so that the stones which cause them to catch their breath may be little older than themselves? Of course, Oxford *is* ancient. But the tourist is likely to point with awe to very modern decay. And the educator often assigns a quaint and perhaps pleasing accident as the true cause of Oxford's achievement in civilization.

Talk about Oxford in this country has been based on mistaken conceptions of the great English university. Educators have seized upon superficial features. At the same time a kind of myth has sprung up among college students —a myth in which Oxford plays the rôle of a fairy prince rescuing the student from durance vile.

The educator's view of Oxford has often been developed in a few visits to the high table and the senior common room. There is much delightful talk from the tutors, and answers to questions about pedagogical method are most casual. This tends to nourish the idea that a tutorial is ringed with tobacco smoke and incubates "personal contact." The educator has probably carried this picture with him to Oxford, so that it takes very little of the common room to stamp it in. He is probably familiar with Stephen Leacock's picture of intellectual osmosis in a tutorial: there is no activity in the tutorial except puffing at a pipe, and yet somehow at the end of four years an enormous amount of something valuable has been conveyed to the

*Reprinted by permission from the *Scientific Monthly*, April, 1930.

student. This view has been promulgated so widely that one is tempted to ask why the Pullman smoker has not been accepted as the school for American youth.

I know a college president who has been very zealous in the development of honors work, organized for weekly conferences of student and professor. He still thinks of Oxford in terms of the free and easy palaver of the common room where the dons gather after dinner. This educator often announces to the community which he heads that when students talk so much and so well education will be in our midst. And there is the president of Harvard University, who feels that the division into small colleges is a major factor in Oxford's success. Harvard is on the point of spending thirteen million dollars for houses which will resemble the Oxford college. Dr. Lowell seems to agree with Bagehot that education is largely the impact of youthful mind on youthful mind. We must provide the physical paraphernalia for a friendly rubbing together of a small group of students. This conception of personal contact was naturally not invented at Oxford. With us it is very largely a reaction against the monstrous size of our universities. But the reaction is often caught looking to Oxford for its next step, and it sees the advance in terms of "personal contact."

In the spring of 1924 the Harvard English department decided to adopt the tutorial system. It provided funds for two of its younger instructors to spend the summer in England, doing some research and incidentally picking up some suggestions about tutoring at Oxford and Cambridge. Since these two gentlemen had only the summer at their disposal they found neither Oxford nor Cambridge in session. The few tutors with whom they conversed told them that there was very little to say about the tutorial. It is as obvious and natural as a meeting of two people who have work to do; one merely follows one's nose to find it. Provide an adequate faculty and an adequate interest on the part of the student and you will always have it.

Is there then nothing to be learned about the machinery of the intellectual life at Oxford? There is, but unfortunately these two very estimable representatives of Harvard were unable to get at it. They were not prepared to understand what lies behind the tutorial and makes it so powerful an instrument. There is a great deal behind its "personal contact." The English tutor does not normally attempt to deal with students whose interest has not been developed before they come to the university. He often regards the American attempt to make the tutorial an instrument for creating interest as a hopeless one, and one which distracts attention from the main problem, which is to build up interests before the student appears in the university. Without such interests already developed the sort of personal contact which one finds in an Oxford tutorial would not exist.

The Oxonians who talked to the representatives of the Harvard English department in 1924 probably listened in some astonishment to the basic ideas which the latter were outlining as the *raison d'être* of the new venture. A tutor at Harvard was to pull the threads of the various courses together and rouse interest by any kind of assignment which seemed to be on a level with the student's capacity. There were to be occasional meetings of groups of eight or ten, with a fire as a center, and all as informal as possible. And it was something of this sort which the Harvard instructors expected to find in the Oxford tutorial. Their ideas were sufficiently remote from the real basis of the tutorial as it is conceived at Oxford to make it rather difficult for an Englishman, even a willing Englishman, to answer their questions in his own sense. It would be difficult for the Englishman to indicate his profound disagreement with the informal, ultra-personal view of education without dilating on the elaborate scheme of organization of which the tutorial is the focus, and for this he rarely gets a hearing.

Naturally the Harvard English department has done a great deal of useful tutoring, since many of its tutors are

intelligent. And its conception of tutoring has probably changed somewhat with increased experience. But Harvard has not been able to profit by suggestions from Oxford, because it does not understand them. One would naturally assume that suggestions from Oxford would have to be reinterpreted in the light of the difference between English and American conditions, but even that is not possible, because the difference itself is not understood in this country. In the last few years we have had in the tutorial system at Harvard and the honors courses of institutions like Swarthmore and Williams a departure from the older American methods. But we must constantly keep in mind the fact that these experiments have not brought us any nearer to Oxford, though they make use of certain methods which have a superficial resemblance to Oxford procedure. The principle of English education differs from both the new and the old in American projects.

Oxford's success is due to its assumption that the major part of a university education is to be secured at school. And it does not merely think this (many professors at Harvard and Swarthmore and Wisconsin do that) but it acts upon the assumption. English parents usually make much greater demands of a school than do American parents. Yet even this is not counted sufficient to guarantee that freshmen will be adequately prepared. Oxford takes special measures. Each of the twenty-one colleges offers a large number of scholarships to be awarded as the result of examinations in a special field like classics or chemistry. The usual value of a scholarship is $350 to $500 per annum; they range up to $1,000, and a few in each college pay smaller sums. These scholarships are sometinmes won by men who can afford to pay their own expenses and who therefore give up the emolument to a poorer competitor but retain the title because of the honor it brings with it.

When money is given to an Oxford college it usually takes the form of a scholarship to be awarded on the basis of examinations. It is not given exactly for the support

of a deserving boy, but rather for the support of a deserving boy whose intelligence and training have been shown to be such as can profit by further cultivation at Oxford. This is demonstrated largely by written examinations.

A school's reputation from the scholastic point of view depends solely on the number of scholarships at Oxford and Cambridge which it is able to win. Naturally a good deal of attention is paid to sifting out the promising boys and developing them in their best subject. Though Oxford makes less noise about opening its portals to rich and poor alike, it has actually been more efficient than most American institutions in giving the poor boy an education. It assumes that there will be no use in having the poor boy in a university unless he is properly schooled. It has taken the necessary steps to see that the schools develop and train any boy who shows promise. If the school can lay its hands on a bright boy by offering scholarships, or in any other way, it will receive an immediate distinction for what it does to pick him out of the ruck and give him the necessary tools.

The school's anxiety to maintain its reputation by winning scholarships affects a great many more boys than are included among the actual winners of scholarships. Any boy who has a chance to win a scholarship will be given plenty of individual attention, and in his last year or two will probably be released from a good deal of the school routine to read intensively on his own, and write essays for criticism by a master.

"Write essays"—this looks like a program in English which would be of very little use for examinations in classics or chemistry. But the awarding of a scholarship at Oxford in classics or chemistry will always involve an essay to test the candidate's command of English and his capacity for thought. The examination for the scholarship will also call for a display of his mastery of English history and literature.

It would be a mistake to think of the preparation for winning a scholarship as a highly specialized one. Take

scholars who have won their emolument in a subject like history. Some of them may elect to do part of the classics program after entering Oxford. They have been well enough prepared at school to keep up with the classics scholar in his special field. The scholarship examination is not designed to favor a narrow training.

This should be kept in mind when it is said that the English *university* student has a greater tendency to specialize than the American student. In a way this is true. He has a better basis for specialization, since he already knows a good deal when he comes to the university.

It should also be remembered that a lot of essay writing has taught him to apply what he knows. The thoroughness of his studies and the amount of independent or extra-classroom activity which is usually included give him a maturity in which the American freshman is notably lacking. A great deal more attention has been paid by the school to developing his interests and finding out what he is best fitted to do. For all these reasons he is more capable of making an intelligent choice of his special field in the university. Interests are developed by hard work under the direction of a man who has every chance to see what the boy is like. This is a fact of which many American schools seem notably ignorant. We have a tendency to regard interest as the gift of a gracious divinity, so that not much hope is entertained of building it up by work. And since we often manage to put off hard work until after college, it frequently happens that our interests are not developed before middle age. Also our schools are overcrowded and have little opportunity for special attention to the promising boy, so that there is not much chance of noticing the germs of interest.

Boys who have been educated very intensively before they come to the university are prepared to do very astonishing things. It should be kept in mind that there are hundreds of these scholarships distributed among the twenty-one colleges at Oxford, and that many who do not

hold scholarships were prepared to compete for them. The ordinary classics scholar coming to the university at eighteen or nineteen can run through the thousand odd lines of the Bacchae in a long evening. He reads scads of Demosthenes and Lucretius at sight.

Some educators and a large part of the American public would be repelled by this description of the scholarship system at Oxford because I have put the main emphasis on the extraordinary command of Latin and Greek which it produces. It would have been just as easy to dilate on the vigorous encouragement which is given by the scholarship system to modern history or science. But Oxford is chiefly interested in making sure that the best freshmen have a complete mastery of Greek and Latin. Oxford is even more strongly convinced now than it was a century ago that the highest type of university training, and the only type which does justice to men of real capacity, is an intensive study of the classics.

The reader who wishes to understand this policy must first dismiss his experience of the study of the classics in an American college or university. In the first place, the command of languages makes possible a kind of study which is almost unknown in this country, even among graduate students. A freshman who has gone to a good American prep school and has stood near the top of his class is ready to tackle an assignment of a couple of hundred lines of Ovid. To be told to read through the Metamorphoses in a couple of days or a week would stagger him. Any one of five or six hundred Oxonians could accomplish it. Thus they are in a position to treat the Metamorphoses as literature.

In the second place, the scholarship system has done its best to make sure that they are really saturated in English history and literature. That is something to be accomplished at home and in school, and in casual reading. Acquaintance with problems of the day is often stimulated at the dinner table. Politics is constantly in the foreground.

Periodical material on these subjects is large in quantity and high in quality, and it is read. The classics scholar usually knows his own country far better than the student taking a course in "American National Problems" knows his. The English undergraduate can afford to travel far afield because he is seeing a good deal at home.

The third reason for dissociating the classics program at Oxford from its American equivalent is that it succeeds in studying a civilization. In studying this civilization it puts its chief emphasis on philosophy. The American teacher of Greek is nearly always anxious to point out to his students that he knows nothing about philosophy. Even when he is giving a course in the Platonic Dialogues he makes a habit of referring to the philosophy department questions about the thought. This may be praiseworthy modesty on his part, but it is none the less a very unfortunate separation, and may lead to a serious misconception of Greek civilization or a serious loss of Greek contributions to present-day thinking. Even if one contended that a civilization could be understood without its philosophy, it would be hard to apply this rule to the Greeks.

The study of the Greek classics is the usual way of beginning philosophy at Oxford, and no one who is teaching philosophy in England has begun the subject in any other way.

American students of philosophy are not very completely saturated in any of the great literatures. This often makes their work barren, and gives it a technical flavor born of unreal problems. The work is remote from the main current of European reflection—Shakespeare, Goethe—and is correspondingly naïve and small-minded.

Plato was trained in a very different way, as is obvious to any reader of the Republic, with its frequent references to Homer and other poets. The English student is able to approach Plato with nearly the same background. He has been soaked in Plato's own literature. It is not uncommon for him to quote Homer in connection with a paragraph

from the Republic, and he seems to do it with taste and aptness. At school and in his first two years at Oxford he becomes thoroughly familiar with Homer, Aeschylus, Sophocles, Lucretius, Vergil, Demosthenes, Cicero and some others from whom a selection can be made. Thus he begins his philosophical studies with a mind which differs very much from that of the usual student of philosophy in this country.

The program of Greats, or *literae humaniores,* which fills the Oxford undergraduate's last two years, has for its *pièces de résistance* Plato's Republic and Aristotle's Nichomachean Ethics. The first assaults are made on these in the long summer vacation, and they are read a number of times. In connection with each one of these books the student writes eight or ten essays. This is precisely half of all his work for a term of eight weeks. It should, therefore, be reckoned as equivalent to one half of our program, or two and one half courses, for eight weeks, or something more than a semester course devoted to each book. This leaves out of account the large amount of time devoted to each of them in the vacations. Normally the student has two essays each week, one in philosophy and one in history. For the latter subject he reads Thucydides and Herodotus, and modern works on Greek and Roman history. There is usually a term (eight essays, something more than a semester course in our terminology) for a book like Bradley's *Ethical Studies,* and another term for logic, say again Bradley's. It should be remembered that before each term there comes a vacation (six weeks at Easter and Christmas). It is a time for soaking up what will later be formulated and criticized in the essays of the term itself. Both the logic and ethics and the term's work in modern philosophy from Descartes to Kant will involve frequent rereadings of Plato and Aristotle, who have dealt perhaps more effectively with the same problems.

The men come back to English life with the framework of a civilization laid bare—and laid bare not by doctrinaire

philosophy but by reflection springing out of a thorough saturation in all the relevant material, poetry, history, science. Science? Where does that come in? One of the most amusing delusions of the modern mind is its idea that science was born in the seventeenth century. As a matter of fact it would not be hard to maintain that the Greek achievements were more important than let us say the English contribution. In order to understand the Athenian thinkers (Plato and Aristotle) who were saturated in Milesian and Sicilian science, the student of Greats becomes moderately familiar with the beginnings of science. While this naturally does not supply him with the knowledge of science which would be desirable in a perfect education, it gives him a far better chance to grasp the main purpose and method of science than is granted to the man who takes "baby physics" in one of our colleges. He also has a better chance to find a place for science in a unified scheme of human activities.

Dr. Meiklejohn in his experimental college at Wisconsin has been giving his freshmen a year with the Greeks. But this is to be sharply distinguished from the program I have just described, since the Wisconsin students have neither the mastery of Greek nor the wide acquaintance with American history, literature and current problems which make the Oxford venture a fruitful one. Nor do they spend a twentieth of the time which the English student gives to the mastering of a few monuments of the Greek genius.

This is a program which all the best students at Oxford are expected to follow, and they display considerable unanimity in electing it.

Many American students would resent being held down for several years to a minute study of Plato and Thucydides. Of course the man who has an interest in history and literature finds that Plato's remarks about artists and his criticisms of institutions grow more fruitful the more he reads. When there is a background in the student's

mind every return to the Republic means an expanding of the interests in history and literature. This well deserves to be called freedom, but it is not the license which the American student often imagines he will find at Oxford.

Very recently an attempt has been made to build up a modern equivalent for the concentrated survey of Greek and Roman civilization. It is called the school of philosophy, politics and economics. Modern English constitutional development, modern economic theory, the industrial revolution, the philosophy of Immanuel Kant—all these things give a special significance to the years after 1760. It was felt that if taken together they would provide a good view of the modern world. Unfortunately the philosophy tends to carry one back into the seventeenth century while the politics and economics move forward into the nineteenth. English philosophy in the ninteenth century is not nearly so fruitful or fascinating as that of the period which culminates in Hume (1750), and yet it is the natural accompaniment for the industrial revolution and parliamentary development. What is even worse, the literary background (which would make the program as solid and concrete as the equivalent study of the ancient world) is so enormous that it takes years to acquire it. The scholarship system which encourages saturation in English history and literature has done comparatively little to produce the same command of French and German masterpieces. The languages which would be essential are perhaps even worse taught than they are in the United States. There are scholarships in modern history and modern languages, but the holders of them have not usually read any modern philosophy at school, whereas the classics scholar has always read some Plato before he comes to Oxford. Thus in the modern field there is a separation of language, literature and philosophy in marked contrast to the union which is maintained between these elements for the student of the ancient world. Ordinary history is well taught at school, but the constitutional development and the economic theory is

passed over lightly, while as I have already pointed out there is no modern philosophy at school. Thus the whole preparation for this modern curriculum is far below what we find with the classics scholar.

The new program has been very popular with foreign students. Since it was started they have been able to work in philosophy without knowing Greek. Then there are always a number of Englishmen who have completed their four years of classics and now take a year to read some modern economics, brush up their history and really come to grips with Kant. It might almost be said that such a five-year program has become the rule with first-rate men. They also get a chance to polish up a modern language hastily learned at school, and to start on a new one. Considering the popularity of Italian philosophy and their command of Latin it is not surprising that this new language is usually Italian. The speed with which this modern curriculum is mastered by the classics student provides good testimony both as to his general training and his equipment in modern subjects.

There has been a good deal of talk in this country about the Oxford student's freedom from lectures. This is almost entirely a myth. The Oxonian attends about as many lectures as his American counterpart, or if he fails to go he is likely to hear about it at the end of the term when he is called up alone before the assembled dons of the college. This should be contrasted with the effort which has been made at Swarthmore to free honors students from lectures. Now of course many people at Swarthmore are perfectly aware that this is not Oxonian, and in any case Swarthmore is not pretending to imitate Oxford. But many Americans seem to believe that it is an Oxford idea. President Lowell is one of them. His reports often allege a contrast between Harvard adherence to lectures and Oxford neglect of them.

The Oxonian is a good deal more highly developed intellectually than his American counterpart, and hence is capable of digesting a larger number of lectures in a given

time. Moreover he rarely attends a lecture unless the book which is being commented upon in the lecture has been studied or at least read over with some care in the vacation. Usually he is devoting a good deal of time to the preparation of essays on the book at the same time that he is hearing lectures about it. He therefore goes to the lecture with a good many questions that he wants answered. At the same time he has the material organized to a point which makes it unnecessary for the lecturer to attempt to cover everything.

There is some freedom involved in the fact that no "homework" need be done for these classes. All the writing is done for tutors, of whom there are normally two (one for philosophy, the other for history), so that two essays, or occasionally three, must be turned out every week. That is all the work there is to do. The usual time for the preparation of an essay will vary from four to twenty hours. Thus some time is often left for reading which is more casual or bears less directly on the problem in hand. And the student has time to do the essay in any way which appeals to him. Only he must remember that a searching fire will be directed at irrelevance. If he wants to go far afield he must justify his point of view to the tutor. Anything he can bring to bear will be welcomed if he really does succeed in making it apply. There is elasticity here, where the mere assignment would prognosticate only a rehash of Plato. It is elasticity made possible by hard work in other fields and brought into connection with the Republic. And it is controlled by high standards as to what is and is not relevant. Even the assignments themselves can be varied if the student will suggest a topic which fits into the general field the tutor has chosen for the work of the term. This subject could be changed only by shifting over to some honors school other than Greats (*e.g.*, English, history). Normally the tutor will run through a series of essay subjects, most of them old standbys. The relation of each term's work to the next is similarly guided by the

Greats tradition, modified by the practice of the college and the tutor's preferences. The whole is related to an examination which will cover all the work.

Taking it by and large this is a mill which must be gone through, must be accepted for better or worse. This is not by any means a new thing for the undergraduate. In school he was early obliged to make certain choices in studies, and after that was put through a coherent routine. If he was picked out to be appointed for a scholarship he was released from some classwork and more attention paid to his special capacities, but the body of work to be done was considerably increased, while higher standards of coherence and relevancy were applied to its organization. He probably had very little to do with the making of the actual decisions as to what he would study, though efforts were made to consider what was likely to bring out his talents most effectively. In the same way he was probably put through a routine of games by all kinds of direct and indirect pressure. He was beaten by older schoolmates and masters if he broke any of the rules. There were a large number of conventions to which he had to conform. This is not altogether admirable, but it breeds a kind of ruthlessness about private impulses, a disregard for the merely comfortable in human relationships, which is quite exhilarating.

Every hour's discussion with the tutor presents a chance for elasticity in the treatment of prescribed subjects. But here too the student is not allowed to be formless. It is taken for granted that people who expect to talk must take some trouble to inform themselves about the subject. In the eyes of the tutor the Oxford student is often slack, but to the American teacher he would probably seem a marvel of intellectual curiosity. The Oxford tutorial is the only institution which approaches an editorial office in the severity of its criticism of bad writing, and it is just as hard on loose talking. English tutors visiting honors groups in this country often impress the American student as brutal. When they see an opening they swing from the canvas.

And the unreality of academic discussion is hateful to them. They give vigorous condemnation to the student's failure to drag his own opinion out into the open and give it an overhauling. He must not discuss issues which are remote for him. A good many sorts of academic pretense yield before the insistent effort to say what one really thinks, and then base the discussion on the issue so raised. This gives the talk a directness which is rude but refreshing. And those who emphasize the informality of the procedure and its closeness of personal contact are undoubtedly right in doing so. Only it is sometimes not noticed that the directness is strictly intellectual, that the informality is informality in brushing aside irrelevancies. The personal contact is a purely intellectual affair. The tutor's concern for private welfare and his friendliness in connection with the business of daily life disappear as soon as the grindstone of discussion has been brought forward. Behind this concentration on the problem lies a rigorous training for both tutor and student. Even the directness and informality of the tutorial are strictly conditioned by this training. It takes some practice to lay one's intellectual cards on the table, to put aside academic pretense. To the uneducated freshman who usually presents himself in our colleges it comes as rather a rude shock to be asked, "Do you really believe this stuff you've been quoting from the book I assigned you?"

This is very closely bound up with the brutal directness of Oxford college life. There is plenty of snobbishness, though it is not always in the ascendant at most colleges. Little effort is wasted trying to remain on friendly terms with those who do not meet with one's immediate approval, and no effort at all is made to conceal what one thinks of them. The play "Journey's End" represents a group of English public-school men in the trenches. The commanding officer has been drinking heavily and is approached on the morning after by the orderly.

"Like a plate of sardines, sir?"

"I should loathe it!"

It would be hard to find anything more typical of the English undergraduate's manner of expression. Americans have doubtless had the same feelings. They have doubtless refused the sardines, and even with harsh words. But there is something in the intonation and the idiom "I should loathe it!" of which few Americans would be capable.

In the last term before the comprehensive examination most of the meetings with the tutor are devoted to the answering of old examination papers. This puts a special emphasis on practice in bringing knowledge to bear on specific questions, and in this last period criticism of form and phrasing is brought into the foreground. There have been a good many examinations before the final test is reached, perhaps an average of one a term. But these serve simply as exercises in relevant writing, and as guides to future assignments. They are marked by the tutor concerned, who thus has another opportunity to bear down on looseness and unreality. They have absolutely no bearing on the degree or the class ranking secured from the university.

The comprehensive examination covering the whole of the work is an important feature of the routine, but it has received rather more than its due share of attention on this side of the Atlantic. Doubtless it is important to demand that the work shall not be crammed, and the comprehensive examination is a good way to make sure that this demand is met. But it is even more important to have a unified program which does away with cramming because it does away with fragmentary work. The elective system in this country has played havoc with unified programs, and it does not do much good to introduce comprehensive examinations until the elective system has been given up. It is not much use in indulging in diatribes against cramming unless we root out the piecemeal idea of education which makes cramming practically inevitable. Piecemeal education is still in the ascendant, for instance, at Harvard.

Swarthmore seems to have a clearer idea of what is meant by coherent work, but many of the programs are so crowded that the result is not much different from what one finds at Harvard. Neither at Swarthmore, Harvard nor at any other American institution of which I know has it done a great deal of good to introduce the comprehensive examination.

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## THE SECRETARY OF THE INTERIOR APPEALS FOR REMOVAL OF ILLITERACY

RAY LYMAN WILBUR

The National Advisory Committee on Illiteracy was appointed by me with the approval of President Hoover on November 16 and organized on December 7. Our Committee has made an earnest effort to encourage the various states and communities in an intensive drive to reduce illiteracy before the census and to lift the nation from tenth place in literacy, which it has occupied in this decade, to higher rank. Through this drive thousands have been reached and taught. We have many evidences of this, although reports are not in and the total number is not known. The success of our initial efforts leads me to believe that with the cooperation of organizations like yours we could soon reduce illiteracy to the minimum in this country. We have made a dent in it. Shall we not do more? From the very facts that opportunity has been offered to some adult illiterates and accepted by them is it not incumbent upon us as educated and patriotic Americans to extend it to all the others without discrimination or stint? It can only be done if all who have education and the vision of a better citizenry will join in heartily.

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The fifty-second annual conference of the American Library Association will be held in Los Angeles, California, June 23–28, 1930. Headquarters will be at the Biltmore Hotel.

# DIAGNOSTIC AND REMEDIAL TECHNIQUES FOR COLLEGE FRESHMEN

H. J. Arnold
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It is now quite generally admitted by college authorities[1] that deficiencies in students' previous preparation, especially in such tool subjects as reading, the mechanics of English composition, arithmetic and spelling, constitute a rather serious handicap to academic success. In many instances such disabilities are perhaps the direct cause of failure. This being the general situation, it would seem pertinent to ask whether colleges are justified, in this day of scientific approach to educational problems, to longer neglect this important aspect of freshman orientation. Can we justify the still too common practice of permitting such handicapped students to continue their college work on a "catch as catch can" basis, trusting to trial and error, good luck or chance discoveries to remedy some of their disabilities? It seems that, for the most part, up to

[1] Replies to a questionnare recently received by the writer from thirty college presidents and deans are practically unanimous in recognizing the serious handicap which deficiencies in tool subjects impose on students.

A few typical replies to this question of deficiencies read as follows: "Yes, most decidedly. It is becoming more pitifully apparent from year to year." "Unquestionably deficiencies in the tool subjects such as reading, arithmetic and language, constitute a definite handicap to academic progress."

"There is no doubt in my mind or in the minds of several of my colleagues, that noticeable deficiencies in the tool subjects are a real handicap to the normal progress of college students."

"I think unintelligent reading, disability in fundamental arithmetic, and deficiencies in the mechanics of English composition are decided handicaps."

"We do find a lack of knowledge of the fundamentals, particularly reading and grammar, to be a serious handicap to college progress."

this time, the colleges have proceeded on the erroneous assumption that before the end of their four-year's course, such deficient students will somehow have overcome the greater portion of the disabilities which stand in the way of efficient college work.

In this article, on the basis of findings made in a rather extensive investigation, the writer proposes to present some practical suggestions for dealing with the problem of college students' deficiencies in certain tool subjects. He is not unmindful of the fact that the situations confronting the various colleges with respect to this problem differ widely; hence, it is hardly to be expected that one set of suggestions will be practicable in all cases. It is hoped however, that some of the methods and techniques suggested may prove helpful to those who are seeking light on this rather challenging problem.

The suggestions and recommendations presented, for convenience, are grouped under two general headings as follows: A. Suggested plan of procedure for colleges, including (1) a discussion of the chief features of an adequate plan of rehabilitation, and (2) suggestions for dealing with student deficiencies in the following tool subjects:—(a) English composition, (b) arithmetic, and (c) reading. B. Some evidence of the value of remedial instruction.

### *A. A Suggested Plan of Procedure for Colleges*

#### I

It is suggested that an adequate plan of procedure for the correction of student deficiencies in tool subjects should embrace the following features:

1. *Determination of the essential skills.* A reasonably dependable list of essential skills in each of the tool subjects which students require for the successful pursuit of the usual college courses. Obviously such minimum essentials should be found by analysis of the basic content subjects of the freshman curriculum.

2. *Diagnostic testing.* In order to approach the problem of freshman deficiencies efficiently diagnostic tests in certain of the more important tool subjects might be given, especially in reading, mechanics of English composition and arithmetic. In some instances where the situation seems to require it, tests in elementary algebra and English vocabulary might also be given.

The silent reading test preferably should measure (a) rate, (b) comprehension of several types of subject-matter, such as literature, science, verbal problems in mathematics, etc., (c) mastery of experimentally predetermined essential vocabulary.

The English composition test should at least comprise (a) capitalization, (b) punctuation, (c) grammar, (d) sentence structure, and (e) spelling. Tests of the students' ability to do (f) creative writing, (g) outlining and (h) organization of subject-matter might well be included if the situation seems to warrant it. In addition to the diagnostic tests, it would probably be well to have a generous sample of the student's written composition for comparison with the results disclosed by the diagnostic tests.

A diagnostic test in arithmetic may be given to all along with the other tests at the outset or at the beginning of certain courses such as chemistry, physics or higher mathematics, which require a reasonable mastery of the fundamental arithmetical processes. The test should preferably cover the field all the way from simple operations with integers in multiplication and division, through the various operations in common and decimal fractions, denominate numbers, percentage, and other essential skills. Preceding chemistry and physics, college algebra and trigonometry, a diagnostic test covering the essential processes in algebraic computation with integers and fractions such as simple division, finding L.C.D. and inverting the divisor, might well be given. The test might also cover such operations as simple equations, proportion, verbal problems,

simple graphs, simplification of ordinary radicals, removal of parenthesis, substitution of values for the unknown, etc., if there seems to be occasion for such an exhaustive diagnosis.

3. *Remedial procedures.* In general, it would seem advisable to segregate into special groups all students whose scores in any of the tests fall below a critical point, or any who while not scoring low appear to have certain difficulties. The critical point will likely vary in the various tests and hence should probably be determined for each test independently. If the distribution of scores is based on grade norms, it would seem advisable to segregate all who score at or below the critical level in the "tool subjects" mentioned. It may prove desirable to vary the level according to results in the various tests. Whether extremely deficient students shall be permitted to carry the normal load, is somewhat doubtful. It might be more advisable to reduce their program in proportion to the degree of their deficiencies. The following proportions of regular work to remedial work are merely suggestive. Students placed in one or two remedial courses, take 11–12 hours regular work; three remedial courses, take 6–8 hours regular work.

Considerable care should be taken in selecting the regular college courses for students enrolled in remedial classes. For example, a few students who are extremely deficient in English composition should probably not be enrolled in freshman English until the second semester. Similarly for those who are extremely deficient in arithmetic it might be advisable to begin chemistry or physics in the second year, although it might be better from the standpoint of motivation to condition such students remaining in the class on their success in mastering deficiencies within a given period of time. It would seem more advisable to proceed with chemistry or physics only after a reasonable mastery of previously determined processes had been ac-

quired. However, this would depend entirely on the degree of deficiency. Ordinarily, students who are deficient in arithmetic can probably overcome such deficiencies without curtailing their regular work, provided they are set to task and are properly motivated. In the final analysis, however, the whole problem of remedial work seems to center in the individual.

Small groups of students having disabilities may perhaps best be helped by placing them in remedial classes for a few weeks under a competent teacher. Dismissal from such classes might be conditioned upon evidence of mastery of the subject matter as may be determined by periodical tests. It is suggested that such remedial courses might be given two at a time, each for a six or eight weeks' period according to the needs of the group. In cases of less pronounced deficiency, students may be required to pursue individual remedial work under the direction of the diagnostician or teacher of the allied subjects until reasonable mastery is evidenced. This procedure may be found quite sufficient for dealing with deficiencies in arithmetic or algebra. In all such cases the "putting it up to the student" technique may be of considerable value in securing desired results.

4. *The Re-Test.* At the close of the remedial period the re-test should be given to indicate progress made toward mastery of the subject matter studied. Should the re-test disclose the persistence of certain disabilities in individuals, each one should be held responsible for remedying such weaknesses and it is suggested that he be kept on probation until a satisfactory degree of mastery is evidenced. It seems quite likely, in view of the experience of certain investigators, that students will proceed to eliminate remediable deficiencies if held strictly to account by the instructor in charge of the rehabilitation work.

5. *College Diagnostician.* All diagnostic testing and remedial instruction should preferably be placed in charge

of a "Diagnostician" or "Director of Remedial Instruction." Since this is partly an administrative and partly a teaching position it would seem desirable that the person selected for this office should be a member of the regular faculty, preferably one who has specialized in tests and measurements. His duties necessarily would depend very largely on the size of the student body and the scope of the rehabilitation program.

Finally, it may be suggested that remedial instruction, in some cases, might be given as a part of a special orientation or "How to Study" course, by an instructor who is well equipped to give intelligent and sympathetic help to those who need it. In certain cases, the student who retains marked deficiencies after a remedial course, should be required to report to the proper authority at least once a week until the evidence of a reasonable mastery is clear. The motivation of such deficient students is of utmost importance. Unless the individual can be convinced that he will be able to work his way through to a fair mastery of reading, for example, he will not put forth the effort necessary to achieve success. Furthermore, all students who complete the remedial program creditably should be urged to make constant use of the remedial techniques acquired during the training period.

## II

Suggestions for dealing with deficiencies in tool subjects.

1. *English Composition.* If improvement in the English situation is to be achieved, an extensive and adequate program of diagnostic testing should be undertaken in cooperation with the English Department. This program should be initiated at the beginning of the year, so that the results may be utilized toward more effective teaching. The English teachers should be urged to give such a program their whole-hearted and generous support.

In the remedial program which must necessarily follow, self taught practice exercises should constitute an impor-

tant phase of the work. If such helps are not available, provision should be made immediately for these teaching materials.

Another important point to keep in mind is that the remedial program should hold the students responsible for only the most essential abilities in the use of the language. It is also well to remember that merely memorizing a set of rules by no means guarantees mastery of the difficulties. The teachers of English should, at all odds, direct their efforts toward the attainment of definite abilities, first by teaching and then by providing sufficient practice to definitely fix the response in the student's mind.

Much individual help may be needed. The results of our study show that only a few abilities offer any great difficulty to large numbers. Each student has his own specific deficiencies and, therefore, needs a specific type of instruction. Because of this individual variation in achievement and in capacity to learn, diagnostic tests and remedial work are almost indispensable for securing the desired results in this aspect of college training.

Corrective measures, to be sure, are many and varied. Which method is best must obviously be determined by the results achieved. Several suggestions may be noted:

(a) An adequate amount of intelligent drill following the general discussion of outstanding errors is recommended as a desirable practice. This may take the form of dictation exercises or the use of special exercises designed to cover certain error types.

(b) Walker[1] found that laboratory exercises, in which students hunt out the technical errors in the lead-pencil copies of the themes of their fellow students, had been found to eliminate probably 25 per cent of the errors. In addition much unnecessary work is spared the teacher.

(c) Although it seems absolutely vital, according to theory, to mark all the errors in all themes, it is a physical

[1] Walker, Francis, "Laboratory System in English," *English Journal*, Sept. 1917, pp. 445–453.

impossibility to do this. Thompson[1] has worked out a very interesting scheme for having students record their own errors. Leiper[2] found the plan of using a senior who is majoring in English to assist in the correction work most satisfactory. In this plan the teacher corrects from one to two-thirds of the papers handed in by the class.

(d) A systematic attack on errors in mechanics of English composition is also possible, by the aid of a freshman chart of all errors made during a given period of time by a given group of students. The year or semester may then be divided into periods of from six to eight weeks, and in each of these periods a certain set of errors and their corresponding principles, which were found violated fifty or more times, might be attacked; in the second period those violated from twenty-five to fifty times, etc. It is suggested, however, that the most desirable form of corrective work is a plan which individualizes the remedial instruction.

However, the criterion by which mastery must finally be measured, it seems evident, is correctness in the mechanical essentials of written and spoken English. Unless this mastery carries over into daily usage, it seems presumptuous to claim that essentials have been mastered. Hence, both the written and oral expression of students undergoing a course of remedial instruction should be checked occasionally for evidence of such mastery.

2. *Arithmetic.* A poor foundation in arithmetic is most likely to affect students' standing in college mathematics, physics, chemistry, and perhaps to some extent their progress in other fields such as psychology, hence the diagnostic tests in arithmetic should probably be given to students at the beginning of these courses. For example, there can not be adequate mastery of inorganic chemistry, itself a tool subject in some of our professional courses, without

[1] Thompson, Stith, "The Notebook System of Theme Correcting," *English Journal*, Jan., 1917.

[2] Leiper, M. A., *A Study of Errors in English Composition.*

reasonable facility in the fundamental arithmetical processes. With the excellent diagnostic tests now available, it is perfectly possible, at the end of a fifty-minute test, to say to a student: "You do not have a sufficient mastery of addition, subtraction, multiplication and division of fractions and decimals to get along well in this field. You will need to remove these deficiencies before you can proceed unconditionally in this course."

It would seem quite possible, in view of the nature and extent of college students' deficiencies in arithmetic, as disclosed by the writer's findings as well as other studies, that diagnostic and practice material could be so organized as to overcome the deficiencies with a minimum of special instruction. In other words, with adequate helps and clearly designated assignments, students may very successfully embark on a course of remedial work that will, within a reasonable time, (from six to twelve weeks) depending on the nature and extent of the deficiencies, help him to attain a satisfactory mastery of the subject.

The students who are found to need help should receive it. This should not be difficult if the diagnosis had been carefully made. Thus, most students having trouble with division of fractions will find the total process coming back to them, once they are reminded that the divisor is inverted, and a little practice will then re-establish the ability to deal with such easy problems. Ability to place the decimal point, in multiplication and division of decimals, should be revived and established with little more difficulty. Even the somewhat complicated manipulations of long division should be easily habituated once more by college students, with a little specific help on the crucial difficulties and a reasonable amount of practice. None of the deficiencies cited in our study is beyond the possibilities of prescription. The chief thing is that the student be set to the task and held responsible for its successful completion.

As a basis for developing remedial exercises, it is first necessary to catalog the specific skills which are required for the mastery of arithmetic. Obviously the analysis of the field into its basic teachable and measurable skills requires much experimentation. Thorndike,[1] Osborn,[2] Greene,[3] and others working in the field of arithmetic have made extensive analytical studies on the basis of which good remedial exercises have been developed. These are available for all types of disabilities.

One of the most complete catalogs of arithmetical skills selected for teaching, testing and remedial work, is the one on which the Compass Diagnostic Tests are based. Something over ninety distinct items contributing to ability in the various aspects of arithmetic are covered in these tests. Further analysis, to be sure, would doubtless disclose other skills, the number which might be isolated being proportional to the minuteness of the analysis. Later these skills are used to show how remedial units must be developed paralleling these skills if some corrective work is to be done effectively. It should be remembered at all times that students do not fail in a vague, general sense, or need remedial work of a vague and general type. Their disabilities are specific. The more exactly they can be located, the more promptly they can be removed.

In the light of the writer's findings, in combination with those reported in studies such as those of Thorndike,[4] Touton, Heilman and Terry,[5] Williams[6] and the writer,[7] the following disabilities seem significantly important from the standpoint of remedial procedure for college freshmen:

[1] Thorndike, E. L. "The Constitution of Arithmetical Abilities," *Journal of Educational Psychology*, XII, No. 1, Jan., 1921.

[2] Osburn, W. J. "Diagnostic and Remedial Treatment for Errors in Arithmetical Reasoning," *Bulletin* of the State Department of Public Instruction, Madison, Wisconsin.

[3] Greene, H. A. et al. "Economy Remedial Exercises in Whole Numbers," *Teachers Manual*, Scott, Foresman and Co., Chicago, 1926.

[4] Thorndike, E. L. *The Psychology of Arithmetic.*

Operations with integers: (1) errors in combinations in all four of the fundamental processes, (2) errors in carrying, and (3) errors in the long division process.

Operations with common fractions: (4) wrong reduction to similar fractions preparatory to addition and subtraction, (5) failure to invert the divisor in division, (6) incorrect reduction of fractional answers to lowest terms, (7) incorrect changing to lowest common denominator.

Operations with decimals: (8) disregard of the decimal point, (9) incorrect placing of decimal points in products and quotients.

Operations with denominate numbers: (10) failure to reduce to usual form, (11) incorrect procedure, mainly borrowing difficulty, (12) lack of ability to reduce units of one denomination to another.

Miscellaneous operations: (13) failure to follow a direction apparently understood, (14) incomplete answers, (15) use of wrong process entirely.

Problem solving: (16) lack of complete problem analysis, (17) incorrect computation due mainly to difficulties in multiplication and division, (18) misinterpretation of problems probably due mainly to difficulties in reading verbal problems.

It seems reasonably safe to predict that the elimination of the above mentioned disabilities through adequate remedial drill will do much to remove students' handicaps in certain college courses. The diagnostician should also be on the lookout for inaccuracies of various kinds, especially in operations with integers involving the fundamental

[5] Touton, Heilman and Terry: "A Diagnostic Study of Certain Mathematical Abilities of a Selected Group of College Entrants," *California Quarterly of Secondary Education*, 1926.

[6] Williams, L. W. "The Mathematics Needed in Freshman Chemistry," *School Science and Mathematics*, XX, No. 7, Oct. 1921.

[7] Arnold, H. J. "The Standing of College Students in Two Elementary School Subjects," in *Research Adventures in University Teaching*, by S. L. Pressey and Others, pp. 107–12. Bloomington, Illinois, Public School Publishing Co. 1927.

processes. Not infrequently certain students subtracted when addition was called for, or added when the directions called for subtraction. Such errors occur with such frequency, that they constitute a very definite corrective problem. Diagnosticians and teachers of mathematics will also find a more careful study of error analyses helpful. Such error studies when wisely used furnish direction for the corrective program.

3. *Reading.* Since the great majority of college students have received very little if any help with the problem of learning to read since they left the grades, they may not know the nature or extent of their deficiency. For this reason, the first step in a remedial program should be to show them by actual test results how deficient they really are. This should be followed by remedial instruction which will show them what they must do to improve not only reading comprehension, but also their rate of reading. These students should also be shown how they may measure for themselves the gains which they are endeavoring to make. Needless to say, such remedial work should be started early in the freshman year, if the student is to be benefitted throughout his regular courses.

It is suggested that some such procedure as the following might be adopted:

(1) Select the deficient readers by means of a good standard test which measures reading rate, reading comprehension, interpretation ability and mastery of vocabulary.

(2) Segregate the poor readers and form one or more sections for remedial instruction purposes. An intensive course of from three to six weeks according to students' needs, will probably be found ample in the majority of cases.

(3) Use the first two weeks for improving the mechanical habits of the students. Poor mechanical habits are due chiefly to four causes: (a) Too many fixations per line due to pausing for every word (normally there should not be more than three), (b)

making of frequent regressive movements, (c) vocalization or inner speech. In order to remedy reading deficiencies the student must know just what his difficulties are. A good manual of carefully prepared exercises is suggested for this purpose.

(4) Use the remaining four weeks to increase speed and comprehension. The student must learn from the beginning that improvement is possible and that no amount of help from a teacher will solve his problem. For remedial purposes, specially prepared exercises, such as are found in the Pressey Manual,[1] are suggested. A recent study[2] by the author of the manual referred to, gives much excellent information, as well as many helpful directions, pertaining to the problems of training college students to read efficiently.

(5) A portion of the last week, or longer, might be spent in illustrating the application of efficient reading methods in the preparation of assignments in various textbooks used by the student in his classes.

(6) As a check upon the student's progress in efficient reading, tests might be given at intervals of two or three weeks. Students should be urged to keep records of their progress, either in graph or tabular forms.

(7) At the end of the remedial period the end test should be given, with the understanding that those who do not achieve the standard set must continue the remedial work until they achieve the degree of proficiency required.

Some of the methods which are exceedingly helpful for improving the reading rate of students who are deficient in this ability are: (a) Forcing oneself to read rapidly (against time) with understanding; (b) reading as rapidly as possible a quantity of easy reading material, such as novels, stories, newspapers, and the like; (c) forcing eyes to "run along the line"; (d) permitting no mind wandering—always concentrating; (e) providing special instruc-

[1] Pressey, L. C. *A Manual of Reading Exercises for Freshmen.* Columbus, Ohio, Ohio State University Press.

[2] Pressey, L. C. "Training College Freshmen to Read," *Ohio College Bulletin,* No. 55, 1929, Columbus, Ohio, Ohio State University.

tion for such remedial cases as lip readers and students having poor eye span and jerky eye-movements. Similarly, comprehension may be improved by (a) systematic practice of wholesome mechanical habits; (b) improvement of both general and technical vocabularies; (c) improvement of general background information; (d) developing habits of looking ahead for meanings. In this connection it may be mentioned that Alderman found that comprehension ability may be improved to a degree equivalent to two semesters by careful systematic drill work, covering a period of one semester, thirty minutes a day. According to this author, the phases of comprehension to which some little attention should be given are: (a) evaluation and organization, (b) interpretation, and (c) reproduction of the material read.

Training in interpretation may be given by giving questions on the reading matter with instructions to seek the answers in the text. Interpretation of certain points in short stories read to the class has been found helpful. This technique may also be applied to textbooks.

Training in evaluation may be secured by having students pick out the most important points in various types of articles. Practice in picking out key sentences of paragraphs and in spotting "guide post" paragraphs in various selections is also recommended as an exceedingly helpful form of remedial work.

One investigator gives ability to organize as one of the chief abilities underlying effective silent reading. This means the ability to arrange the main points logically, usually according to some purpose. This ability logically follows evaluation.

It seems entirely possible that a great deal of concrete help can be given to freshman students if some of the suggestions mentioned above could be put into operation. Those who undertake a remedial reading program should keep constantly in mind that reading deficiencies are distinctively individual problems. Each student has his own

particular deficiencies, hence his own particular needs. By all means a student should not be led to think that the completion of a six weeks' remedial course necessarily makes him a good reader. He should be encouraged to continue his own rehabilitation until a fair mastery of reading has been achieved.

B. *Some Evidence of the Value of Remedial Instruction*

Remedial or corrective teaching is now generally conceded by authorities to be the most logical, as well as the most scientific method, of attacking deficiencies in an individual's knowledge of basis subject matter. Greene and Jorgensen[1] say, in a recent book: "Remedial teaching is the result of deliberate constructive effort by the teacher after the particular points of weakness in the instruction of pupils have been revealed by tests."

A minor investigation which the writer has made recently throws some light on this question. More than two years ago he gave diagnostic tests in capitalization, punctuation, grammar and sentence structure to a group of 146 college under-classmen, mostly freshmen. At the time the tests were given, it was not intended to follow up the results for longer than the semester in which the project was undertaken. Later, however, to secure evidence on certain aspects of the problem now under consideration, it was decided to give these identical tests to those of the original group who were still in college at the time of making this study, the majority of whom were now juniors and seniors. There were thirty-one students who took the second tests, this being all of the original 146 still in college at this time. As might be expected, these thirty-one students are considerable above average (2.00) in scholarship, their mean point average being approximately 2.85. A brief summary of the results is given in the following table.

[1] Greene, Harry A. and Jorgensen, Albert N. *The Use and Interpretation of Education Tests.* New York, Longmans, 1929, p. 207.

SUMMARY OF RESULTS OBTAINED FROM 31 COLLEGE STUDENTS IN TWO IDENTICAL TESTS GIVEN FOUR SEMESTERS APART

| Type of Test | No. of Abilities Tested | Total Errors 1st Test | Total Errors 2d Test | Total New Errors made 2d Test | No. 1st Test Errors Repeated in 2d Test | Average No. Errors Per Student 1st Test | Average No. Errors Per Student 2d Test | Average New Errors Per Student | Per Cent Gain |
|---|---|---|---|---|---|---|---|---|---|
| Capitalization | 15 | 139 | 120 | 57 | 58 | 4.2 | 3.8 | 1.6 | 7 |
| Punctuation | 25 | 353 | 242 | 54 | 182 | 11.4 | 7.8 | 1.7 | 31 |
| Grammar | 18 | 182 | 166 | 77 | 82 | 5.8 | 5.3 | 2.5 | 9 |
| Sentence Structure | 6 | 148 | 110 | 36 | 67 | 4.7 | 3.5 | 1.1 | 26 |
| Average per cent gain | | | 18 | | | | | | |

From the above tabulation we see that the actual gain per cent in the abilities requisite for the mechanics of English composition over a period of four semesters in college without reference to remedial work, was only 18.

The effect of repetition of the identical test probably enters into this result to some extent, however. It was also found that more than 50 per cent of the identical errors made in the first test were repeated in the second test. The average number of new errors made per student in the second test was 1.7. While the evidence here is by no means considered conclusive, it seems reasonably certain, from these figures, that deficiencies were not overcome to any marked degree in the normal course of college work. These results would seem also to be in agreement with the theory of special abilities, long advocated by Thorndike, and now generally accepted as the fundamental approach to all corrective work.

Book, of Indiana University,[1] as a result of a program of special remedial instruction participated in by fifty-four students, under his direction, succeeded in improving the reading efficiency of these individuals by 102 per cent during a semester. Their ability to master their assignments was increased from 60 per cent to 97.3 per cent efficiency. Some students improved their efficiency as much as 250 per cent.

In a rather extensive investigation of the disabilities of freshmen probation students carried on at Ohio State University, Dr. L. C. Pressey,[2] among other things, found that by requiring each student to spend approximately an hour per week for one quarter on remedial practice in each tool subject in which he ranked below eighth grade standard, it was possible to rehabilitate approximately 90 per cent of these deficient students to such an extent that they could be excused from the remedial classes.

A further minor study of the rehabilitation value of remedial practice in the college field was made by the

[1] Book, W. F. "How Well College Students Can Read," *School and Society*, August 20, 1927.

[2] Pressey, S. L. and L. C. et al. "Research Adventures in University Teaching." Bloomington, Ill., Public School Publishing Co., 1927. Pp. 11–21.

writer in connection with a group of 120 freshmen enrolled in the Department of Education at a certain Ohio college. Of this group forty students or 31⅓ per cent, received "below passing" total scores on the Monroe Diagnostic Tests in Arithmetic at the time of enrolment. After six weeks of remedial instruction dealing with the specific deficiencies, as revealed by the test results, thirty-eight of the forty students secured above passing scores, the average gain of the group being 41 per cent.

It would seem reasonably certain, then, in view of the evidence, that properly directed remedial techniques have considerable rehabilitation value for students who are deficient in certain subjects of background preparation. The fact remains, however, that the colleges, as a whole, have not adopted this approach to the problem of poor scholarship due to student deficiencies in the tool subjects.

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## GROWTH OF THE HAMLINE UNIVERSITY LIBRARY

The development of the Hamline University Library is an encouraging feature of the progress made by the college in recent years and is typical of many institutions. The BULLETIN is glad to print the following figures submitted by President Hughes:

The expenditures for the Hamline Library during the past seven years are as follows:

| Year | Enrolment | Budget (inc. books, periodicals, and binding) | Per capita cost |
|---|---|---|---|
| 1923–24 | 581 | $2069.63 | $3.79 |
| 1924–25 | 568 | 2057.07 | 3.62 |
| 1925–26 | 639 | 2486.29 | 3.89 |
| 1926–27 | 473 | 2402.84 | 5.08 |
| 1927–28 | 408 | 2195.20 | 5.35 |
| 1928–29 | 415 | 2216.90 | 5.13 |
| 1929–30 | 432 | 2950.00 | 6.32 |

# A NEW CURRICULUM AT TOLEDO

HENRY J. DOERMANN

President of the University of Toledo

At the close of the academic year 1928–1929 the faculty of the University of the City of Toledo agreed upon a reconstructed curriculum for the College of Arts and Sciences. For a number of years the University had been operating on the junior-senior college plan of organization. Under careful guidance in the junior college, students' programs of study were made up on the principle that the four years of high school and the first two years of college were to round out the general, or liberal, education of the student. In practice this principle was actually carried out in so far as the nature of the individual courses permitted. It was felt, however, that the conventional organization of subject matter left very much to be desired if the objectives, especially of the junior college, were to be achieved. Moreover, the somewhat unique character of a municipal college, in which the students' contacts with the academic community were limited almost exclusively to classroom hours, was a further stimulus toward revision. The following aims were therefore set up.

(1) The junior college curriculum should provide a program of studies of general or liberal content to supplement a reasonably well defined and known high school course;

(2) Opportunity should be provided in the first two years for the further mastery or acquisition of the necessary mental tools and skills for genuine university study during the last two years;

(3) Provision should be made for an introductory acquaintance with one or more possible fields of later specialization.

The manner in which specific content was given to these objectives is given in the outline which follows:

THE UNIVERSITY OF THE CITY OF TOLEDO
COLLEGE OF ARTS AND SCIENCES

*The Junior College*

Required courses (with semester hours) for all candidates for a degree.

Arts: Contemporary Literature—American, English and Foreign (4); Esthetics (3).
Natural Science: Laboratory Science—Astronomy, Botany, Chemistry, Geology, Physics, or Zoology (4); Integrated Natural Science Survey (4).
Social Science: The Individual and Social Phenomena—Introduction to Social Science (6).
Citizenship: Effective Municipal Citizenship (4).
Mental Tools: *Rhetoric (6); Reflective Thinking (3).
Health: Hygiene (2); Physical Education (2).
University Membership: Convocation (2).
Electives restricted by (1) character of high school course, and (2) degree prerequisites.
Required Courses—40 semester hours.
Total for Junior College Title—64 semester hours.

*The Senior College*

The minimum number of semester hours required for any one of the three degrees is sixty (60), or one hundred twenty-four (124) for both the Junior and Senior Colleges, restricted as follows:

A. *For the Bachelor of Arts degree.*
I. Prerequisites:
(1) Graduation from an accredited high school, credits to include two years of mathematics;

* *Rhetoric*—Students whose high school grades indicate competence in the use of English and others who believe themselves possessed of such competence will be given an objective, standardized test in English. Those meeting the required standards will be excused from the required course in freshman rhetoric. (Rhetoric instructors believe the number of exemptions will be few.)

(2) Sixty-four (64) Junior College credits, including all required courses;
(3) Mastery of one foreign language.*

II. A major** in one field of the arts or humanities.
III. A minor** in one field of arts or of science.
IV. Electives.

B. *For the Bachelor of Science degree.*

I. Prerequisites as for A.B. above, except for the foreign language requirement.
II. A major** in a field of natural science.
III. A minor** in a field of natural science or of mathematics.
IV. Electives.

C. *For the Bachelor of Philosophy degree.*

I. Prerequisites as for A.B. above, except for the requirements in foreign language and high school mathematics.
II. A major** in any field of the A.B. or B.S. groups.
III. A minor** in any field of the A.B. or B.S. groups, or in any professional field.
IV. Electives.

* Foreign Language—Oral and written examinations will test the student's mastery of the language. The standard of accomplishment would ordinarily represent three years of study of the language. The requirement cannot be met by credits. Time devoted to the study of the language is immaterial so long as the student demonstrates his capacity to use the language.

** The minimum number of semester hours for a major (thirty) or minor (eighteen) shall obtain only when a closely integrated, specified sequence of courses is followed. Whenever the major or minor is made up of courses not following a specified sequence the number of semester hours shall be increased.

# PROFESSIONAL STUDY OF HIGHER EDUCATION

ARCHIE M. PALMER

The fields of elementary and secondary education have long been subjects of scientific investigation and of professional study. Departments of education in practically all colleges and universities professing to train teachers for the elementary and secondary schools have established professional courses dealing with the principles and the techniques employed in those fields. A systematic body of knowledge and of procedure at those levels in the educational program has been developed and a considerable literature has been accumulated.

This spirit of scientific investigation has been less rapid in making itself felt in the realm of higher education. During the past decade, however, there has been a marked and widespread professional interest in problems of higher education. Although late in arriving, this movement has already begun to manifest itself in the establishment of professional courses in the field of higher education. No less than thirty-six institutions are now giving such courses. In one institution, a distinct Department of Higher Education, offering courses on techniques of college administration and teaching, has been organized.

The earliest evidences of systematic instruction in the field of college administration and college teaching are found at Teachers College of Columbia University and at Purdue University. In 1923–24 Teachers College offered a general course on "College Administration," for graduate students interested in the problems of the American college, while that same year Purdue University offered a course on "Psychology of Learning and Teaching Applied to College Work," intended primarily for its own assistants and instructors but also occasionally attended since its inception by those of professorial rank and by graduate students who had had teaching experience. The course at

Purdue, which is given only in alternate years, is designed to provide a thorough study of the psychology of learning and teaching, and a critical study of modern methods and technique of teaching in colleges.

The work of the original course at Teachers College has expanded and the demand for its development has grown to such an extent that during the academic year three types of courses are provided: general courses, informational in character, one section dealing primarily with administrative problems and another emphasizing problems more directly concerned with college instruction; research courses; and seminars. The general courses are conducted by a group of professors and lecturers who are specialists in various phases of higher education. The research course is designed for those who are working intensively upon some problem, while the seminar is intended for candidates for the degree of Doctor of Philosophy. During the summer session the regular Teachers College staff is supplemented by administrative officers of other institutions, and the general courses become forums for the consideration of problems of special concern to those enrolled.

As an indication of the types of college officials who have taken advantage of these courses during the past seven years, it is of interest to note the positions previously held by those registered or the positions to which they have been invited: 37 college presidents, 4 vice-presidents, 24 secretaries, 23 registrars, 48 deans, 6 assistant deans, 11 deans of men, 17 deans of women, 4 deans of instruction, 35 heads of departments, 93 college instructors, 8 business officials and about 100 others representing a wide range of educational service.

For research in higher education generally, and for a study of its own problems in that field, the University of Pittsburgh established in 1927 a Division of Research in Higher Education. As the Division accumulated research findings they were systematized into courses of study to be

offered students desiring to study for university credit in this field. In September, 1928, a Department of Higher Education was established in the Graduate School of Education and courses have since then been offered both during the regular year and in summer session. The members of the staff of the Division and others appointed from the general University faculty conduct the courses.

Courses in the field of college education have been given, during the regular academic year and in summer session at New York University since 1925–26. The student personnel in these courses has been made up primarily of graduate students who have either taught in liberal arts colleges or in teachers colleges, and those anticipating teaching or administrative work in such colleges. A number of general courses designed for the training of college teachers and administrators are offered at Ohio State University in its Departments of Principles and of School Administration both during the regular year and in the summer quarter. The University of Kentucky and the George Peabody College for Teachers offer both general informational courses on college administration and teaching and specific courses on the techniques of a registrar's office during the regular school year and during the summer. The University of Chicago offers during the summer quarter a course on the professional duties of deans and registrars.

The summer vacation period appears to be the most popular time for conducting courses in the field of higher education. Not only are college administrators and teachers more likely to be able to attend courses then, but there is also better opportunity for getting specialists and experienced workers in the field to appear before these groups for longer or shorter periods during the summer months. Some of the summer offerings have already been mentioned. General courses on problems of higher education are also offered during the summer at Duke University and at the

Universities of Chicago, Colorado, Idaho, Michigan, Minnesota, Texas and Wisconsin. In addition to the courses for college and university administrators offered during the summer quarter there is held at the University of Chicago each year a general conference on college and university administrative problems; a discussion of curricular problems of senior colleges and of graduate and professional schools will be the central theme of the conference this year.

The following institutions will this summer offer special courses on the junior college: the Universities of Alabama, California, Iowa and Nebraska, Stanford, Duke, New York and Ohio State Universities, Colorado State Teachers College and Teachers College of Columbia University. In general, these courses are intended for teachers and administrators in these colleges and deal with the development, organization and administration of the junior college, its purpose, objectives, curriculum, teaching staff, etc. During the regular school year similar courses on the junior college are offered by Stanford University and the Universities of Alabama, Arkansas, California, Southern California, Iowa, Missouri, Nebraska and Washington.

In addition to those mentioned earlier, general courses on college administrative and teaching problems are offered during the regular academic year at the following institutions: the Universities of Notre Dame, Maryland, Cincinnati, Oklahoma, Oregon and Chicago, and at Yale, George Washington, Indiana, Cornell and Western Reserve Universities. These courses are advertised under a wide diversity of title, including "The Liberal Arts College," "The Administration of Higher Education," "Problems in the Administration of Higher Institutions," "Movements in the Organization of Higher Education," "Fundamentals of College and University Education," "Improvement of Instruction in Colleges and Universities," "College and University Teaching," "College and University Administration," "Problems in Higher Education" and

"Problems of College Teaching." They are also listed as seminar and thesis courses in College Administration and in Higher Education.

These general courses usually cover such topics as college and university organizations, government and control; administrative organization and procedure; institutional finance and business management, including maintenance problems; student and alumni relations, and personnel administration; curriculum organization; selection and training of college teachers and supervision of instruction; and the place and development of liberal and professional education. In some institutions the content of the course is divided between administrative problems *per se,* instructional problems and personnel problems. Teachers College of Columbia University offers a series of unit courses of short duration, usually two weeks in length, on special aspects of college administration.

In 1927–28 Pennsylvania State College established a general survey course on "Problems of Collegiate Education," designed for members of the college teaching staff and advanced graduate students. Although omitted this year, it is planned to conduct the course again next year, in the form of a discussion group. During the current year a less formal program of study of problems of higher education has been followed. About once a month an outside speaker has appeared before the faculty and delivered a lecture on a topic related to higher education, followed by informal discussion. This practice has been so well received by the faculty that it will probably be continued.

Some years ago a seminar in problems of higher education was started at Harvard University by the Dean of the Graduate School of Education but, while very successful, was discontinued because of the pressure of other duties. The heads of schools of education at a number of institutions have indicated a keen interest in the conduct of professional courses in college administration and teaching,

and there is every indication that the offerings in this field will steadily increase.

As valuable by-products of the instructional phase of these professional courses there have been established at a number of institutions special libraries in the field of higher education; bibliographies on the different phases of college administration have been compiled; significant research studies have been made, and publications including Ph.D. dissertations have resulted. At several institutions the students in the courses, as well as the staff, have been afforded opportunity to participate in surveys of individual colleges, of groups of colleges and of entire state systems of education.

Courses on "the teaching problems of college composition" are offered during the summer at the University of Pittsburgh and at Teachers College of Columbia University. As soon as there is a demand for courses in methods and problems of teaching in other fields of higher education, the assurance is given that graduate courses will be offered by the heads of the respective departments in the University of Pittsburgh. These courses are designed for persons now teaching or intending to teach in colleges and universities.

The Association of American Colleges and its Executive Secretary, in particular, have contributed in no small measure to the promotion of this movement and to the development of a science of college administration. In the catalogue announcement of a survey course on "Higher Education for College and University Teachers" given at one institution the statement appears that it is "offered to meet the need voiced by the Association of American Colleges for a course in which college problems are discussed in the light of the newest developments in education, psychology, and practical college administration." As another instance of the contribution of the Association to this fast-growing movement there appears in this issue of the BULLETIN under the title of "A College President's Profes-

sional Library" a bibliography in the field of college administration and teaching that is recommended for those interested in the professional study of higher education.

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## ATTRACTING FINE ARTS TEACHERS

Each year the Carnegie Corporation awards a series of scholarships enabling the incumbents to pursue graduate study in the fine arts either in this country or abroad, in preparation for the teaching of graphic and plastic arts in colleges and universities, as contrasted with teaching opportunities in museums or professional schools. It is the desire of the Corporation to attract promising young men and women to the teaching profession rather than to recognize merit and accomplishment on the part of those who are already members of the profession.

The stipend ranges from $1,200 for the first year graduate students to $2,000 in certain cases for advanced work abroad, but in this, as in other matters, the practice of the Corporation varies to meet the requirements of the individual student. One hundred and twelve students made application for grants this year; sixteen scholarships were awarded. Although no formal pledge is required of incumbents, it is understood that applications received are made in good faith by those who are planning to become teachers.

The advisory group which made the selections included Harry B. Wehle of the Metropolitan Museum of Art, Henry Allen Moe of the John Simon Guggenheim Memorial Foundation, Agnes Findge of the Department of Art of Vassar College and Professor Clarence Ward of Oberlin College.

Candidates were chosen on the recommendations of those competent to judge from their own professional experience of the applicant's ability, and on the plan and purpose of study as set forth by the candidates themselves.

# IN AID OF COLLEGE LIBRARIES*

WILLIAM W. BISHOP

The General Library, University of Michigan

The name of Andrew Carnegie is firmly and securely joined in the public mind with libraries. That of the Carnegie Corporation of New York, established in 1911, is perhaps no less closely associated with libraries and librarians, despite manifold activities in other lines. Mr. Carnegie's practice of giving library buildings was for a while continued by the Corporation after his death, and not a few colleges and communities owe their library structures to the generosity of one or the other. Of late years the library benefactions—may one call them investments?—of the Carnegie Corporation have been devoted to the improvement of professional training for librarianship, to aiding in the work of the extension and improvement of libraries throughout the country; in general, the aim seems to have been to raise standards of library work and professional morale, rather than to bestow grants on individual libraries either for buildings or books. But it has not escaped the notice of librarians that many grants made by the Corporation included a generous provision of books; witness the collections of books on the Fine Arts given to scores of colleges during the past five years.

In 1928 the President of the Corporation recommended to his Trustees that they embark on a policy of helping colleges with gifts of suitable books for their libraries. To Dr. Keppel this meant—one may assume—something more than merely voting certain sums of money. Rather, he saw in the prospect of these grants a means of checking the status of many college libraries, of furnishing at least some minimum standards for judging them, and of stimulating

* This article is being published simultaneously by the *Library Journal*, May 15, 1930.

all colleges to think carefully and profitably about their library service. To that end he organized an "Advisory Group" on College Libraries, which has now had several meetings.

This Advisory Group consists of two elements, college executives and librarians, *i.e.*, four college presidents, Aydelotte of Swarthmore, Glass of Sweet Briar, Lewis of Lafayette, and Wilkins of Oberlin; Dean Gildersleeve of Barnard, and Dr. Kelly, Permanent Secretary of the Association of American Colleges. The librarians are Keogh of Yale, Bishop of Michigan, and Milam, Secretary of the American Library Association. Mr. R. M. Lester, Assistant to the President of the Carnegie Corporation, is Secretary of the Group, and Mr. Bishop is Chairman. Professor Amy Reed of Vassar and Dean Hawkes of Columbia were originally members of the Group, but have felt obliged to retire because of other calls upon their time.

At the outset the Advisory Group was told that it should address itself solely to the problems presented by libraries of liberal arts colleges having a four-year course. This at once excluded university libraries and junior college libraries as well as those of professional schools of law, medicine, theology, education, and specialized schools. This definite limitation has great advantages. It not only confines the field of study to a certain type of institution of higher education; but, more, it furnishes a group clearly defined, reasonably homogeneous, offering points of similarity which admit not only comparisons on an equable basis, but some fairly positive and reasonable statements of underlying principles which apply to the group as a whole. In other words, selection on a fair basis applicable to practically all this group of colleges is possible, while one may postulate certain minimum standards of college library service without doing substantial injustice to any considerable number of American colleges.

The first work of the Advisory Group was to determine what information was needed in order to act on a request

for a grant in aid of a college library. The Group drew up a tentative schedule of points on which it would require data. These preliminary studies were submitted to some colleges whose requests for aid were already on file, and a few others were asked to fill out the questionnaire. From the replies it at once became evident that the questions must be made more definite and that some must be added. The completed form is printed at the end of this article. Over a hundred and fifty colleges have now submitted answers to these questions, and these answers are being condensed, tabulated, and reduced to common terms so far as possible. The Advisory Group is in process of gathering a very considerable mass of statistics about college libraries, statistics which have never before been available. The American Library Association Committee on Library Revenues, for example, has sought just this information for some years.

The Group is anxious, however, to go behind the returns, and to discover the real attitude of the colleges toward their libraries as evidenced by the way in which they are supported with funds, administered by their officers, and used by faculty and students. To this end personal visits either by a member of the Group or by someone representing it have been arranged for and will be carried out so far as possible. This visitor will (in most cases) already have made a study of the replies to the questionnaire. He will seek to discover not alone facts about the physical plant, the book-stock, and so on; but much more eagerly will he search for evidence of a carefully matured library policy on the part of the trustees and administrative officers, of adequate support of the library's budget, of professional ability on the part of the library staff, of careful book selection as shown by the collections, and of intelligent cooperation between library, faculty and students.

How can one be sure that a college library is well chosen and actually owns the books it should have? This question seemed of such prime importance to the Advisory

Group that a sub-committee consisting of President Wilkins and Mr. Milam was charged last year with the task of overseeing the preparation of a basic list of books for a college library. This work was placed by them in the hands of Mr. C. B. Shaw, Librarian of Swarthmore College, who with the help of the Swarthmore faculty and a large number of volunteer advisers (both college professors and librarians) has now brought this list nearly to the point of publication in its preliminary form. It is expected that it will be issued in May, 1930, in proof. The colleges applying for aid will be asked to check their holdings against this list. Not alone will the character of their book collections be thus revealed—weaknesses in the list will also appear. In revised form the list should be ready for publication in the fall. It will serve as a buying list as well as a checking list. For general distribution it will probably be sold through the American Library Association Headquarters office in Chicago, and thus all libraries may perhaps profit by the work carried on by the Group for a particular and more limited purpose.

In fact, the Advisory Group hopes to secure, as a result of its work, the publication of several studies of college libraries and their problems. The incidental professional benefit arising from such studies should be fully as important to the colleges as the actual grants of money. A book on college library buildings, for example, is already under preparation by Librarian James T. Gerould, of Princeton, under the sponsorship of the Association of American Colleges.

The form in which grants should be made, the amounts of individual grants, the methods of selection, all have yet to be determined. If possible, a program of cooperative buying will be inaugurated, in order to make the money go farther and yield more books. It has already been decided to furnish with the books thus supplied printed catalog cards in a sufficient number of copies for complete dictionary cataloging and for shelf-listing, thus relieving the col-

lege libraries of a very considerable burden in the cataloging process and hastening the availability of the books.

Two matters should be made very clear to colleges seeking grants. First: while the Advisory Group believes its "basic list" of books will prove an excellent guide to purchase, no college is under any obligation (if it received a grant) to buy any titles on the list. There is no intention to limit complete freedom of choice in any particular. Second: all applications for grants should be sent to the offices of the Carnegie Corporation in New York; they should not be addressed to the Advisory Group or any of its members. Applications, however, are not necessary as the Group is already giving consideration to suggestions initiated by the Corporation itself and from other sources. The selections of applications to be passed on by the Advisory Group—which has only advisory functions—are by the officers of the Carnegie Corporation. And a last word—the limitation to the four-year liberal arts college is complete and final, so far as the present Advisory Group is concerned. Junior colleges, technical schools, liberal arts colleges in universities (unless maintaining separate libraries), teachers' colleges, and other institutions of higher instruction do not (as yet) come within the scope of this work.

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## LIBRARY SCHEDULE

### CARNEGIE CORPORATION OF NEW YORK

*If space given for answers is not sufficient, please use back of sheet, repeating number of section.*

### ADVISORY GROUP ON COLLEGE LIBRARIES

**Request for Information**

**College** .....

**Address** .....

**President** .....

Please use figures for the same year throughout.

Specify year _____

1. Total expenditure
   (a) for college instruction $_____
   (b) for college administration _____
   (c) of current funds for departmental use (laboratories, etc.) exclusive of funds for purchase of books _____
   (d) for library purposes, including all funds for books and library administration (*Record details under Section 14*) _____
2. Number of full time instructors of each rank on teaching staff _____
   _____
   _____
   _____
   Total _____
3. Number of full time undergraduate students enrolled in the academic year, as of November 1, 1929 _____
4. (a) Are there reading courses for honors?
   (b) How many students are enrolled in these courses? _____
   (c) Are there other reading courses as distinguished from lectures and text-book instruction?
   (d) How many students are enrolled in these courses? _____
5. What special efforts are made to encourage general reading apart from courses of instruction?
6. What special demands, if any, are made upon the library by
   (a) instructors, (b) students, (c) others?
7. (a) Is there a good bookstore readily accessible to students?
   (b) Does the college maintain a bookstore?
   (c) Does the college bookstore sell books of general interest?
8. Library building:
   (a) Date of erection. _____
   (b) Is it fireproof?

(c) Number of square feet for library purposes _____
(d) Total linear feet of shelving _____
(e) Per cent of building used for other than library purposes _____
(f) How many books can be added without an addition to present building? _____

9. (a) Total seating capacity of reading rooms, including departmental reading rooms _____
(b) How many more seats can be added without an addition to present building? _____

10. Number of
(a) volumes in the library _____
(b) pamphlets in the library _____
(c) volumes added each year during past 5 years

year _____ _____
_____ _____
_____ _____
_____ _____
_____ _____

(*Include departmental collections*)

11. The character of the collection, as ascertained by checking standard lists, *e.g.*, Mudge List of Reference Books
(*Information under this section will be called for as soon as check lists are prepared.*)

12. Number of journals currently received
(a) in English _____
(b) in other languages _____
(c) number regularly bound _____
(d) number regularly kept and not bound _____

13. System of classification employed

14. Annual expenditures for the library, including departmental reading rooms:
(a) Salaries $_____
(b) Books, periodicals, and binding _____
If (c) and (d) below are not separately recorded, do not answer
(c) Current expense, excluding maintenance and operation of building _____
(d) Maintenance and operation _____

15. Library Staff:
    (a) Number of members _____
    (b) Education of each member
    (c) Professional training of each member
    (d) Experience of each member
    (e) Name of librarian
16. Library hours:
    (a) General reading rooms
    (b) Stack service
    (c) Department reading rooms
17. (a) Are the library stacks readily accessible (open access) to the entire student body?
    (b) What restrictions are there, if any?
18. Annual statistics of library books used outside of the library and of other use by both faculty and students, with any comments possible on the character of the circulation:
19. (a) What departmental libraries are there?
    (b) Are departmental library books duplicated in the main library?
20. What other library facilities are readily accessible to students?
21. What policies have been adopted as to the purchase of duplicates?
22. Is there any systematic instruction for college students in the use of the library? Please describe *briefly*.
23. What policy has been adopted looking toward segregating obsolescent material; *i.e.*, what effort is made to give students access to a collection of live books only?
24. What plans have been formulated or proposed by the librarian for promoting reading and developing the library?
25. Please report any figures available as to the amount of time which students spend in the library.
26. Please send: Check
    (a) Report of the President ( )
    (b) Report of the Treasurer ( )
    (c) Annual Budget (if available) ( )
    (d) Report of the Librarian ( )
    (e) Any recent printed description of the library ( )

# THE GENEVA SCHOOL OF INTERNATIONAL STUDIES

JULIAN PARK

The University of Buffalo

The Geneva School of International Studies will hold its seventh annual session from July 14 to September 5 of this year, with a supplementary period beginning on September 8 (the first day of the meeting of the League Assembly) continuing to the close of the Assembly. The principal feature of the eight weeks' course will be a series of weekly lectures and discussions on special subjects and problems bearing on the study of international affairs. Arranged by weeks, the topics and lecturers are as follows, one series of lectures being in French, the other in English: First week, *Geography:* F. Maurette, head of the research division, International Labour Office; Isaiah Bowman. Second week, *The United States:* André Siegfried; Alfred Longueil, University of California. Third week, *Asia:* Sir W. S. Marris, late governor of Agra and Oudh; Professor Massignon, Collège de France. Fourth week, *Education:* Professor Piaget, Geneva; J. Dover Wilson, University of London. Fifth week, *History:* R. Coupland, Oxford; Louis Eisenmann, University of Paris. Sixth week, *Sociology:* Wilhelm Haas, Hochschule für Politik; Bronislaw Malinowski, University of London; Eben Mumford, University of Michigan. Seventh week, *Economics:* Henry Clay, University of Manchester; Henri Hauser, University of Paris. Eighth week, *Law:* J. L. Brierly, Oxford; Georges Scelle, University of Dijon.

In addition to these lecturers, there is attached to the School a staff of tutors, who meet the students in small groups for discussion of the lectures. Furthermore, Professor Alfred Zimmern, director of the school, lectures frequently and conducts a seminar for advanced students.

There are other frequent lectures by members of the League Secretariat and distinguished visitors to Geneva.

Last summer the student enrolment was 450, representing thirty-seven different countries. The total staff consisted of sixty-one different lecturers, representing twenty-one different countries. Sessions of the School are held in the Conservatory of Music, opposite the university. The students as far as possible are found living accommodations near each other, with Geneva families where they will hear the best of French, and advantage is taken of all the resources of the city as a human laboratory for the study of contemporary world affairs for students of university rank. In general, no American students of rank below seniors would be acceptable. The American members of the advisory committee are David Hunter Miller and Charles P. Howland.

The school is affiliated with the University of Buffalo, through which arrangements may be made for accrediting toward an American degree work done at the school. Further information regarding the school may be had on application to the New York office at 218 Madison Avenue.

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## THE EASTERN ASSOCIATION OF COLLEGE DEANS AND ADVISERS OF MEN

THEODORE A. DISTLER, Secretary
New York University

One more educational association! But one which it is believed has a definite object and may accomplish substantial results.

The new organization is an offshoot and affiliate of the national Association of Deans of Men, and had its inception, on the initiative of Dean H. G. Doyle, of George Washington University, at the meeting of the national organization in Washington, D. C., in April, 1929. Since the parent association necessarily holds many of its meetings at points remote from the Atlantic seaboard, the Eastern members desired to establish a special forum in their own territory for the annual discussion of their special problems.

The branch association will aim particularly to foster and promote personnel ideals in the administrative and counseling work of the Eastern colleges. It will discuss various phases of college administration, requirements, curricula, and student life, with emphasis in general on the personnel point of view.

The first annual meeting was held at Atlantic City on February 21, 1930. Dr. David A. Robertson, of the American Council on Education, spoke on "Patterns," Dean H. C. Stone, of West Virginia University, on "The Dean of Men and Personnel Worker," and Dean R. H. Rivenburg, of Bucknell University, on "Student Loans." A constitution was adopted, and officers were elected as follows: President, Dean Max McConn, Lehigh University; Vice-president, Dean Kenneth O. Mason, Brown University; Secretary, Mr. Theodore A. Distler, New York University; Treasurer, Dean H. E. Stone, West Virginia University.

## ON THE EDITORIAL PAGE OF THE METROPOLITAN DAILIES

The editorial columns of a newspaper have long been recognized as a weather vane of public opinion and of public interest. When lengthy editorials are devoted to matters which are pressing problems in the educational world, it is a manifest indication that these problems are of general concern and are the subject of reflection on the part of the people generally. The following recent editorials from three leading metropolitan dailies are striking instances of this popular interest.

### CITADELS OF CULTURE

*The New York Times, March 30, 1930*

The most distinguished educational event of the week has been the series of lectures at Teachers College by Sir MICHAEL SADLER, Master of University College, Oxford, culminating in his discussion of a liberal education. Following closely upon the meeting of several hundred presidents of American colleges in the previous week, this series will have a special interest for those who are concerned for the future of the college of liberal arts, and especially the small college. His general theme was "The Outlook in Secondary Education." The mounting of the secondary school population in America during the last half century is without doubt the most notable movement in educational history since the days when the multitudes followed ABELARD out into the fields. Sir MICHAEL estimates America's influence to have been the most powerful in the building of the new citadels of culture. He does not hold this to be the sole factor, nor does he contend that the change would not have happened without American influence. But it would have come more slowly, for more than any other country the United States "has given drive and momentum to the new trend of educational thought and administration."

This is praise from the highest of authorities, for in educational matters Sir MICHAEL is Sir Hubert; and it encourages America to carry that leadership into the higher realm in which liberal education has for the whole people what it had for the few in ARISTOTLE'S time. In his day free citizens alone were liberally educated, and for public, not private, ends. They stood apart from the mechanic "whose training was for servitude, not necessarily an unhappy servitude." But a liberal education is no longer a "royal enclosure," entered only by a privileged minority, served by "the illiberally trained." The ghost of the earlier exclusiveness still haunts English education, but it is frustrate here in America, where the doors of a liberal education are open to the multitude and where half the youth of eligible age have entered to make trial of their wills and wits.

Sir MICHAEL quotes MILTON'S definition of a liberal education as the "most famous" and MATTHEW ARNOLD'S as the "most far reaching of the moderns," but his own, composed when he was president of the Calcutta University Commission, deserves to be cited as the crowning contribution of his lectures:

> A liberal education should be given under conditions favorable to health. The body should be developed and trained by systematic and vigorous exercise. The eyes should be trained to see, the ears to hear, with quick and sure discrimination. The sense of beauty should be awakened. The hands should be trained to skillful use. The will should be kindled by an ideal and hardened by a discipline enjoining self-control. The pupil should learn to express himself accurately and simply in his mother tongue. Through mathematics he should learn the relations of forms and of numbers. Through history and literature he should learn something of the records of the past; what the human race (and not least his fellow-countrymen) have achieved; and how the great poets and sages have interpreted the experience of life. His education should further demand from him some study of nature

> and should set him in the way of realizing both the amount and the quality of evidence which a valid induction requires. Besides this it should open windows in his mind, so that he may see wide perspectives of history and of human thought. It should also, by the enforcement of accuracy and steady work, teach him by what toil and patience men have to make their way along the road to truth. Above all, a liberal education should endeavor to give, by such methods and influences as it is free to use, a sure hold upon the principles of right and wrong. It should arouse and enlighten the conscience, the intellectual conscience and the moral. It should give experience in bearing responsibility, in organization, and in working with others for public ends, whether in leadership or in submission to the common will.

This is a gospel of preparation for livelihood and for leisure alike, directed to a man's use in the world but not altogether "this-worldly."

### Harvard's House Plan

*New York Herald-Tribune, November 20, 1929*

Harvard's desire, or perhaps we should say the President of Harvard's desire, to cut the undergraduate body up into smaller units, providing continuous social contact between faculty and students, is gradually approaching realization. Thanks to the munificent Harkness gift of $11,000,000 for this purpose, announced a year ago, the first two "houses" in the series that will eventually divide the three upper classes into residential groups are well on their way to completion. Application blanks and descriptive pamphlets have been distributed to members of the present junior class who, it is planned, will move into them next fall.
more are to be built, if present plans are followed, while others are to be fashioned out of the freshman dormitories. They will contain, besides studies and bedrooms, dining halls, common rooms and libraries, interior courts, where one may take the air in cloistered privacy, and recreational facilities.

Each will have a member of the faculty as resident master and other professors and tutors as members, resident and associate. These men will gather at meals with the resident students, mingle with them in the common room, live with them and work with them on much the same basis that obtains at Oxford and Cambridge.

Approval of this bold departure from American educational methods is by no means unanimous either at Cambridge or elsewhere. And no doubt certain objections to it are worthy of serious consideration. It is contended, for example, that it will create arbitrarily a number of social organizations that will conflict with the natural groupings into which the student body now divides itself by means of clubs and other voluntary bodies. Those who argue in this fashion find support in the announced intention of the authorities to make the membership of each "house" a cross-section of the undergraduate department as a whole, in the limitation on the selection of his "house" by the individual student which this implies and in the understanding that attendance at one or more meals in the "house" will be compulsory. They can see in the scheme nothing but a destruction of the freedom of choosing one's eating place and one's companions that has made for individualism and independence in the Harvard of today and the stratification of college life on a seminary model. There is much to be said for this view, especially given the quality of food served in many Harvard dining halls in the past. The "house" system, to be successful, must first of all make eating a pleasure.

No doubt this danger exists and should be carefully weighed by those who are promoting the experiment. But one should assume that they are aware of it and that in their desire for the success of their project they will make every reasonable attempt to adapt it to the normal currents of student life. There seems to be no valid reason why it should run counter to the present club system any more than to the present arrangement of the curriculum. Men

can live in different houses and still meet in their clubs, as they can and are meant to in their classes. Clubs at Harvard are not residential. Most, to be sure, serve meals, but these meals could be cut down in number to conform with the new dispensation without materially modifying the club's excuse for existence.

In any event, no one who has canvassed in his mind the evils of the present regime of mass education in our larger universities can help but look upon this "house plan" with a sympathetic eye. Indeed, it or its equivalent was first seriously proposed by the students themselves—in a report of the Harvard Student Council in 1926. Classes at Harvard number 1,000 students each. Units of this size tend to result in the most perfunctory relations between pupil and instructor. To carve this huge layer cake for individual consumption into small vertical segments, each with a frosting of faculty and a complement of seniors, juniors and sophomores, to say nothing of a sprinkling of graduate students, seems like an eminently sensible program.

In its inception it may require a more or less arbitrary herding, with rules that seem irksome, but as each "house" takes on an institutional character, as rivalries develop and traditions are established, the choice of a "house" should, and probably will be left more and more to the student himself and regulations with respect to meals and other residential matters be relaxed and even varied. In other words if, when the thing gets going, the suggestion of regimentation is removed and the student is permitted to feel that his "house" and its associations and routine are of his own choosing, then, we should say, the experiment ought to prove a success and usher in a new and better era in American education.

### How Intellectual are Colleges?

*New York Evening Post, January 29, 1930*

So much attention having been given to college athletics, it is only reasonable that an inquiry should be made into

the activity for which colleges are supposedly founded, namely, the intellectual. Such an inquiry would be worth while if it did nothing except remind the public—and, incidentally, some of the students—that the chief function of an institution of higher learning is higher learning.

The inquiry is to be made by the Association of American Colleges, which will seek as accurate an answer as possible to the question: What value should be placed on the influences now being exerted and the agencies now being employed to stimulate the intellectual life of the members of the colleges, both among the faculties and among the students?

This question will take into consideration as an important matter, perhaps the most important matter related to it, the extent to which colleges are leading students to independent thinking. The answer to it will be based in part upon a survey of such agencies and methods as preceptorial and tutorial arrangements, the comprehensive and other untraditional forms of examination, the coordination of laboratory, library and chapel facilities with actual efforts at thinking and appreciation, prevailing methods of teaching, honors courses and spontaneous intellectual activity on the part of students.

It is suggested also that the inquiry cover attempts to unify the entire curriculum and to develop a philosophy of life. These attempts, on their face fantastically ambitious, should be examined along with other experiments to improve the intellectuality of undergraduates, but it is safe to say that the most useful agencies and methods will be of a less soaring nature.

The most useful of all intellectual agencies, however, cannot be introduced into a college at will, for it is nothing less than a teacher whose personality fires his students with something of his own enthusiasm. Fortunate the college which has one such person on its faculty.

# A COLLEGE PRESIDENT'S PROFESSIONAL LIBRARY*

ARCHIE M. PALMER

The following books have been selected in cooperation with the publishers and a group of college presidents as suitable books to be included in a college executive's professional library. The books were placed on exhibit at the Sixteenth Annual Meeting of the Association of American Colleges, where they were inspected by the presidents, deans and other representatives of the more than four hundred member colleges of the Association and were the center of considerable interest.

No pretense is made that there are included in this list all the books that a college president may find helpful to him in his professional work. Such stimulating works as John Dewey's *Education and Democracy,* Ernest Dimnet's *The Art of Thinking,* Norman Foerster's *The American Scholar,* and Michael Pupin's *The New Reformation* will not be found in the list. An effort has been made to restrict the selection to books bearing primarily on the professional and technical problems of college administration and teaching.

Practically all the books included in this list have been donated to the permanent library of the Association by the publishers and are available for reference at the office of the Association, 111 Fifth Avenue, New York.

ALLEN, W. H. Self-Surveys by Colleges and Universities. World Book Co., 1917. 394 p. $2.80.

ANGELL, R. C. The Campus. D. Appleton & Co., 1928. 239 p. $2.50.

ANGELL, R. C. A Study in Undergraduate Adjustment. Univ. of Chicago Press, 1930. 164 p. $2.00.

ARNETT, T. College and University Finance. General Education Board, 1922. 212 p. Gratis.

* Reprints of this article may be obtained from the Association office at ten cents per copy.

ARNETT, T. Teachers' Salaries. General Education Board, 1928. 83 p. Gratis.

BARTLETT, L. W. State Control of Private Incorporated Institutions of Higher Education. Teachers College, Columbia Univ., 1926. 95 p. $1.50.

BELL, B. I. Common Sense in Education. William Morrow & Co., 1928. 321 p. $2.50.

BERRY, E. Philosophy of Athletics. A. S. Barnes & Co., 1927. 214 p. $2.00.

BETTS, G. H. The Curriculum of Religious Education. Abingdon Press, 1924. 535 p. $3.00.

BLAKE, M. B. Guidance for College Women. D. Appleton & Co., 1926. 285 p. $2.50.

BRAGDON, H. D. Counseling the College Student. Harvard Univ. Press, 1929. 162 p. $2.50.

BREWER et al. Cases in the Administration of Guidance. McGraw-Hill Book Co., 1929. 304 p. $2.50.

BREWER et al. Case Studies in Educational and Vocational Guidance. Ginn & Co., 1926. 243 p. $1.60.

BROOKS, R. C. Reading for Honors at Swarthmore. Oxford Univ. Press, 1927. 196 p. $2.00.

BURTON, E. D. Education in a Democratic World. Univ. of Chicago Press, 1927. 165 p. $2.00.

CARR, W. G. Education for World-Citizenship. Stanford Univ. Press, 1928. 225 p. $2.50.

CAULLERY, M. Universities and Scientific Life in the United States. Harvard Univ. Press, 1922. 269 p. $2.50.

CHAPIN, F. S. Extra-Curricular Activities. Univ. of Minnesota Press, 1929. 140 p. $2.00.

CHARTERS and WAPLES. Commonwealth Teacher-Training Study. Univ. of Chicago Press, 1929. 660 p. $4.00.

CLAPP, CHASE & MERRIMAN. Introduction to Education. Ginn & Co., 1929. 569 p. $3.00.

CLIPPINGER, W. G. Student Relationships. Thomas Nelson & Sons, 1926. 125 p. $1.50.

COE, G. A. What is Christian Education? Charles Scribner's Sons, 1927. 300 p. $2.50.

COMFORT, W. W. Choice of a College. Macmillan Co., 1925. 55 p. $0.80.

CRAWFORD, A. B. Incentives to Study. Yale Univ. Press, 1929. 194 p. $5.00.

DOERMANN, H. J. The Orientation of College Freshmen. Williams & Wilkins, 1926. 162 p. $3.00.

DONEY, C. G. Half Way to Noon. Abingdon Press, 1929. 198 p. $1.50.

DUFFUS, R. L. The American Renaissance. Alfred A. Knopf, 1928. 321 p. $3.50.

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